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ABSTRACT

This monograph resulted from a meeting of regular and special education leaders which addressed what works for the successful inclusion of students with special needs in regular education classrooms. The monograph focuses specifically on inclusion of students with learning disabilities. After an executive summary, the paper includes a review of the current situation, an analysis of options, recommendations, and a glossary. Recommendations are framed in the form of questions to guide development of state and local strategies toward effective implementation of the least restrictive environment principles. Questions are derived from National Education Association policy and position statements and address: (1) educational environment, (2) policies and practices, (3) staff preparation/professional growth, (4) roles and responsibilities, (5) decision making, and (6) rights and responsibilities. A glossary presents definitions of 13 relevant terms including "at-risk students," "inclusive education," and "weighted formulas." (Contains 31 references.) (DB)

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A REPORT FROM PROFESSIONAL STANDARDS AND PRACTICE

Integrating Students With Special Needs

Policies and Practices That Work

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ONE

Executive Summary

Virtually every state and most school districts are attempting to integrate students with special needs into regular schools and classrooms. These activities derive their legal force from the "least restrictive environment" (LRE) section of Public Law 94-142 (as amended by PL 99-457 and PL 101-476) which provides that:

> *. . . to the maximum extent appropriate, handicapped children, including children in public or private institutions or other care facilities, [must be] educated with children who are not handicapped . . .*

Efforts to integrate students with special needs and regular students are referred to by many names, including LRE, Regular Education Initiative (REI), mainstreaming, and full inclusion. They are also very controversial. Proper implementation activities have resulted in quality educational experiences for all students. But improper practices have led to a reduction of quality in classrooms and enormous frustration and negative experiences for students, parents, and education professionals.

This publication is the product of discussion and debate that occurred at a summer 1991 meeting sponsored by the National Education Association (NEA). The meeting was held to examine "What Works for the Successful Inclusion of Students With Special Needs in Regular Education Classrooms." Regular and special educators who are NEA leaders and who often have extensive experience with state or local attempts to integrate students with special needs and other students interacted with representatives of the educational research and policy, practice, teaching, and advocacy group communities. Those representatives discussed papers providing the latest policy and research perspectives on what works.

That meeting and this publication seek answers to very profound educational questions. The value of integrating students with special needs into regular schools and classrooms is not at issue. Nor is the issue that of recounting past attempts. There is irrefutable evidence that each and every effort to place students with special needs in regular classrooms can, and often does, lead to problems. But there is also a growing body of laboratory and clinical evidence showing that integration can help provide all students with curricular and life skills that expand their opportunities for future success. The current state of knowledge about successful practice makes this an opportune time to reflect on how schools can achieve high quality outcomes in integrated settings for all students. This publication seeks to encourage that reflection.

It is important to note that students with diverse physical, emotional, and learning problems are being integrated into regular schools and classrooms. While there are many similarities in the educational policies and professional practices that promote higher quality outcomes for students with all types of physical, emotional, and academic needs, there are also differences. This publication focuses on the largest and fastest growing population of students with special needs—those who have been classified as learning disabled—in the belief that the policies and practices presented here may be adopted or modified to benefit other students.

This publication begins and concludes with the professional concerns and the

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professional recommendations of experienced, practicing teachers. Broad and continuing NEA member concern about highly disparate and often inappropriate LRE implementation practices gave rise to the summer 1991 meeting. Fifteen teachers used consensus-building processes at that meeting to generate teacher-to-teacher recommendations. Scores of additional teachers and Association members also brought their experiences to bear in reviewing and providing feedback on drafts of this publication.

The publication joins the worlds of practice, research, and policy in describing successful strategies for integrating students with special needs in regular schools and classrooms. The discussion concludes with a checklist for guiding the development of proactive state and local association strategies for effective LRE implementation. Three papers present the policy perspective on what works from the points of view of state, local, parental, and teacher stakeholders.

- **Tom B. Gillung** and **Theresa C. DeFrancis** describe what it takes to attain successful state policies that integrate regular and special education populations. Gillung is the immediate past president of the National Association of State Directors of Special Education and the acting director of the Division of Educational Support Services for the state of Connecticut. DeFrancis is an attorney with the Office of Legal and Governmental Affairs of the Connecticut State Department of Education.
- **La Nelle Gallagher** presents a parental perspective on policies that have proven successful. Gallagher is president of the Learning Disabilities Association of America, an advocacy group for parents of children with learning disabilities.
- **Marlyn Franklin** and **Ruthmary Cordon-Cradler** provide a case study of how to translate state and association policies into effective local school-based programs. Franklin is a junior high school teacher, an association leader, and a participant in the California Framework for Excellence in Education and Every Student Succeeds Programs. Cordon-Cradler is a member of the Instruction and Professional Development staff of the California Teachers Association, NEA.

In addition, three papers present the research perspective on how to create quality in schools and classrooms:

- **David Johnson**, **Roger Johnson**, and **Edythe Johnson-Holubec** describe the use of cooperative education as a tool for effectively mainstreaming students with special needs into regular classrooms. The Johnsons are associated with the Cooperative Learning Center at the University of Minnesota and are known internationally for their research on and programs which use cooperative education.
- **Douglas Fuchs** and **Lynn Fuchs** present their most current research on improving decisionmaking skills and increasing achievement levels of both students with special needs and regular students using computerized curriculum-based measurement and classwide peer tutoring. Both Fuchs' are professors of special education at Vanderbilt University and editors of the *Journal of Special Education.*
- **Ellen Schiller**, **Martha Coutinho**, and **Martin Kaufman** highlight effective integration approaches and techniques for achieving better outcomes for students with disabilities. Their paper identifies the beliefs and values of those who are most successful at educating students with disabilities and the research that grounds those beliefs. These three authors are senior staff members in the Division of Innovation and Development, Office of Special Education Programs, United States Department of Education.

Most importantly, this publication presents the thinking of NEA teacher/leaders who have experienced integration attempts. They report what they have found to be successful in integrated set-

tings and provide recommendations to teachers about the characteristics of effective programs.

Editor's Note: In common practice, integration terms such as regular education initiative, inclusive education, least restrictive environment, and mainstreaming are often used synonymously and inappropriately. While every effort has been made to maintain consistency in the use of terminology throughout this publication, each author brings his or her setting's usage to this document. A glossary is provided at the end of this publication to create a basis for discussion.

TWO

Review of Current Situation

Overview of Findings

Policies That Work

National, state, and local policies must encourage and provide for the implementation and maintenance of quality programs to ensure the successful integration of students with special needs into regular schools and classrooms. While policies concerning licensing, funding, monitoring, and personnel development can create a fertile environment for integration efforts, they should not serve as substitutes for the development of a full continuum of services that ensure an appropriate education for all students.

Successful policies must stress the needs of all individuals, including those with learning disabilities, above administrative convenience or external forces. Every regular and special education student is entitled to a comprehensive, integrated, program that has been developed with the active involvement of the student, parents, educators, and other professionals who have knowledge about the needs of and the best possible educational placement for that student.

Successful policies are created by stakeholders who have developed a firm vision of intended outcomes and an understanding of all existing rules, regulations, funding patterns, and interagency agreements. Successful policies also include significant and meaningful input and commitment from those who are to be affected by them, such as the implementers (teachers and administrators) and the consumers (parents and students).

To guarantee the free and appropriate education to which all students with disabilities are entitled, it is essential that all classroom teachers receive adequate preparation and sufficient professional support. Teacher licensing requirements should be examined to ensure that regular education teachers are thoroughly prepared to teach students with disabilities and are able to modify the curriculum in ways that enhance learning outcomes for these students.

To create and maintain high quality outcomes, the school integration effort must be fully financed, piloted, and evaluated on a controlled basis before systemwide, statewide, or national implementation. Financing for integration efforts is a chronic problem, therefore, funding patterns must be reconceptualized and restructured to allow flexibility in distribution to designated populations.

Successful policies cover the desired outcomes of schooling—including academic achievement, academic self-concept, and the willingness to persist on difficult tasks. They also give attention to the types of related services and collaboration that are needed to deliver the education programs and services. Successful policies must meet the continuing personnel needs and the financial costs of all affected programs, and must allow for flexible funding options. These policies also must encourage ongoing program monitoring activities by all participants and must require that any activity modifications be based on the educational, social, and emotional needs of individual students.

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One of the most sucessful tools for enhancing integration is cooperative learning. Teachers using cooperative learning techniques have reported increased levels of self-esteem, improved psychological health, and large achievement gains for all types of students.

An important requisite for quality integrated education is a comprehensive system of personnel development for all education employees that provides the skills, knowledge, and resources needed for teaching students with all types of learning problems. This system should include procedures for acquiring and disseminating significant knowledge from education research and practice and for adopting promising practices, materials, and technologies. Activities should be designed that help participants learn strategies for promoting collaboration, analyzing local needs, and making decisions. Training must be provided throughout the school year so all personnel may participate. California's "Every Student Succeeds" Program—an innovative association/state cooperative project—is currently underway in California. Like most other states, California is faced with a rapidly increasing demand for special education services for students who have increasingly complex needs. This demand has been occurring during a time of significant underfunding for special education, a special education teacher shortage, and a movement toward having regular education teachers provide more services to students with special needs. To address these issues while also maintaining a quality educational experience for both regular students and students with special needs, the California Teachers Association (CTA) appointed a task force of regular and special education teachers to study the impact of integration. The task force convened a meeting of all major state educational organizations with an interest in special education to seek consensus on policies. The state superintendent of public instruction then appointed participants to become members of an advisory committee charged with developing state implementation guidelines.

The guidelines for the effective implementation of integration require that programs reach all "at risk" (not just special education) students at an early age, provide extensive high quality training for staff, achieve cooperation between participants, gain the goodwill of the entire school community, have the support of all levels of administration, and receive full funding. More importantly, participants decided that a continuum of academic, social, and emotional services should be provided to all students regardless of their disability, race, or ethnic or cultural background. The goal is that educational activities will be refocused on a student's needs rather than on the available programs. The guidelines also call for implementation strategies such as collaborative teaching, student study team planning, and other support activities that are to become an integral part of both the regular and special education processes. The guidelines also specify that these activities, including meetings, occur within the parameters of the work day.

Based upon these criteria, the California Department of Education initiated "Every Student Succeeds" (ESS), a pilot program that demonstrates how to implement a high-quality program. The advisory committee played an active role with the California Department of Education in the development of the ESS guidelines and in the selection of the ESS pilot schools. The committee also insisted that the evaluation of the ESS pilot be done by an independent body with no ties to the pilot school. The program is just underway and first results look encouraging.

What Research Tells Us

Even the best planned policies for integrating special needs students into regular schools and classrooms carry no guarantee of successful academic outcomes. Thoughtful policies create opportunity, but it is classroom practice that establishes relationships and leads to outcomes.

Hundreds of teachers and educational researchers have reported on the successful integration of students with special needs into regular classrooms. One of the most successful tools for enhancing integration is cooperative learning. Teachers using cooperating learning techniques have reported increased levels of self-esteem, improved psychological health, and large achievement gains for all types of

students. Students who have had extensive cooperative learning experiences also have additional interpersonal skills and are better able to use knowledge and resources in their career, family, community, and societal settings.

All lessons and almost all curriculum materials can be modified to include cooperative learning; but it is a complex educational process, few teachers have been trained in its use, and it often is improperly implemented. To be successful, cooperative learning must have five essential elements:

1. Students must perceive they are linked so that they cannot succeed unless other group members also succeed.
2. Students must have face-to-face opportunity to promote success by helping, assisting, supporting, encouraging, and praising each others' efforts to learn.
3. Each student's performance is assessed and the results given back to the group and the individual.
4. Students must be taught leadership, decisionmaking, trust-building, communication, and conflict management skills. Cooperative learning is not just a student grouping mechanism.
5. Time is allowed for group organizing and maintaining the group cooperation process.

A recent innovative cooperative learning approach that has great potential for integrating students with special needs and regular students uses a computer-assisted, curriculum-based measurement (CBM) program along with a classwide peer tutoring program (CPT) as instructional tools. In CBM, every student and the teacher receives a computer-printed graph showing the student's scores over time and a skills analysis. A computer is used to formulate instructional recommendations based on individual and group patterns of growth; the teacher's judgments about future curriculum; and "expert" CBM information about performance patterns, skill prerequisites, and recommendations for whole-class and small-group instruction. The computer is used as a tool to help students work together and with their teachers as they analyze patterns of academic growth, focus on current problems to be addressed, and learn to engage in the problem solving process.

Using the information on achievement patterns, classwide peer tutoring (CPT) identifies tutees (players) and their tutor (coach). Coaches are selected on the basis of the CBM data that indicate they are capable of teaching the identified curriculum content, but all pupils are taught to be peer tutors. For each problem type, a peer-tutoring packet structures the activities for the participants.

Preliminary findings suggest that classwide CBM used in conjunction with peer tutoring enhances the achievement of students with mild and moderate academic problems who receive instruction within a large-group setting. Findings also indicate that teachers feel more capable of incorporating students with disabilities into their class instruction when they use these procedures.

Conclusions

The placement of students with special needs in regular classrooms can be successful when it is appropriately implemented. Successful implementation requires that everyone share the underlying belief that all students can succeed. Integration must also ensure that a full array of service options is available for all students. Student placement must be based on individual educational needs as determined by a diagnostic team, that includes regular educators, special educators, parents, and when appropriate, the student. For students to reach their potential, both in academics and in life, quality integrated programs must feature early identification and remediation of learning difficulties, an individual educational program appropriate to the student's needs, classroom modifications for achieving desired outcomes, and positive reinforcement for everyone involved in the process. Achieving successful integration also demands professional collaboration between all

Successful implementation requires that everyone share the underlying belief that all students can succeed.

participants and requires that the individuals who deliver the program have also designed it.

All professional staff must be fully prepared and properly licensed to meet the needs of all students. This requires an integrated comprehensive preservice and in-service strategy for preparing all teachers to work with students who have learning disabilities. To be effective, in-service training must take place during the school day as part of normal organizational activity and it must concentrate exclusively on activities that lead to desired student outcomes.

The successful education of integrated populations of students who have varied learning styles, strengths, and abilities must also include strategic planning at both the building and district levels, timely access to pre-referral help, a broad view of student outcomes that includes the education of the whole student, and assessment by everyone involved in the programs using appropriate assessment procedures (e.g., portfolios, classroom observations). In addition, a successful program needs to have administrative support for staff, parents, and programs; ongoing support for strategies, materials, and discipline; and accessible facilities.

Finally, the placement of students with special needs in regular classrooms can only be truly successful through the use of instructional strategies based on the full body of current educational research. This research is characterized by:

1. collaborative learning and teamwork,
2. student-centered learning with a substantial portion of teaching activities devoted to the active participation of the student,
3. parents who are informed and involved in the education of the student, and
4. appropriate teaching strategies for the varied learning styles of students.

THREE

Analysis of Options

What Works in Integrating Regular and Special Needs Students: A Teacher to Teacher Perspective

NEA's examination of successful ways to integrate students with special needs into regular schools and classrooms is not merely for the purpose of reporting on educational policy and professional practice research. The Association also seeks to expose teachers who have not yet experienced integration programs to advice from those who have, and to outline the underlying beliefs, implementation strategies, and instructional tactics that predominate in successful programs.

To accomplish this, regular and special educators who are NEA leaders and who have experienced integration programs as a result of Public Law 94-142, participated in this project and reacted to the policy and practice research through their own personal experiences in integrating students with special needs who are generally classified as learning disabled. These teachers represented every region in the country and most special and regular education teaching categories. The following special educators attended the meeting:

- **Nancy Dunton**
  Classroom Teacher
  Northwest Suburban Special School District
  Mt. Prospect, IL
- **Harrison Edinger**
  Classroom Teacher
  Orange County School District
  Orlando, FL
- **Forrest Elliott, Jr.**
  Classroom Teacher
  Clifton School District
  Clifton, NJ
- **Lynne Elwood**
  Resource Teacher
  Millard Public Schools
  Omaha, NE
- **Elaine Gordon**
  Classroom Teacher
  Scituate School District
  Scituate, MA
- **Sue Hovey**
  Classroom Teacher
  Moscow School District
  Moscow, ID
- **Patti Ralabate**
  Classroom Teacher
  Danbury Public Schools
  Danbury, CT

The following regular educators attended the meeting:

- **Barbara Barbour**
  Classroom Teacher
  Windsor School District
  Windsor, VT
- **Lee Betterman**
  Classroom Teacher
  Springfield School District
  Springfield, IL
- **Marlyn Franklin**
  Classroom Teacher
  Redondo Beach City School District
  Redondo Beach, CA
- **Sandy Leach**
  Classroom Teacher
  Osceola County Public Schools
  Kissimmee, FL

- **Kathy Ramage-White**
  Classroom Teacher
  Tucson Unified School District
  Tucson, AZ
- **Clara Floyd**
  Classroom Teacher
  Montgomery County Public Schools
  Bethesda, MD
- **Linda Wyatt**
  Classroom Teacher
  Roanoke City Public Schools
  Roanoke, VA

The meeting was moderated by John Graham, chairperson of the NEA Caucus for Educators of Exceptional Children, and a resource specialist with the Hemet Unified School District in Hemet, CA.

Reaching Consensus

Since each participating teacher had experienced different integration projects—that used different names, definitions, and procedures, and achieved different results—the meeting featured a lively discussion and left unresolved many issues about what constitutes a successful program. The intensity of the discussion about how schools can best achieve equity and quality outcomes for all types of students and the lack of conclusions are indicative of the unrest being experienced in states, districts, and schools across America. The consensus that was reached in many areas supports a basic premise of the discussions—that quality integrated education is possible when appropriately implemented.

Following the presentations contained in this publication on state-of-the-art policies, procedures, and activities that have proven themselves to be successful, meeting participants achieved consensus on the following underlying beliefs, implementation strategies, and instructional activities. These recommendations are intended as a guide to school employees who must implement an integration plan. However, it is unlikely that the experiences of others will mirror the exact circumstances that gave rise to the following outline.

The intensity of the discussion about how schools can best achieve equity and quality outcomes for all types of students and the lack of conclusions are indicative of the unrest being experienced in states, districts, and schools across America.

Underlying Beliefs

Through consensus-building processes, the participants concluded that the placement of students with special needs in regular schools and classrooms tends to be most successful when the school administration, education employees, and parents share the following underlying beliefs:

1. That all students can succeed and learn.
2. That special education students have the potential to succeed in regular education programs when the integration is properly implemented.
3. That a professional collaboration should be encouraged and nurtured along with coordinated planning time for special educators and regular educators who are working together.
4. That disabilities may be chronic and lifelong, but early identification and remediation, an individualized education program (IEP) appropriate to student needs, classroom modifications, coping strategies and positive reinforcement will help a student to reach his/her potential, both in academics and in life.

The participants concluded that the placement of students with special needs in regular classrooms has the best chance of success when the following strategies are employed:

1. A full array of service options is available with placement based on the individual educational needs of each individual student.
2. The individuals involved with the delivery of the program also design the program.
3. Determination of need is made by a diagnostic team that includes regular educators, special educators, parents, and when appropriate, the student.
4. Support systems and personnel are provided as dictated by individual student and program needs.
5. Provisions specified in PL 94-142, as

amended by PL 99-457, and PL 101-476, are adhered to and fully funded.

6. All related services are delivered by licensed professionals, and medication and health care procedures are administered only by properly licensed/certified school nurses or other medical personnel.
7. Mandated pilot, demonstration, and ongoing programs are developed with concurrence of the district, staff, and community and are validated by practice.
8. Implementation strategies (e.g., collaborative teaching, student study team planning, coordinated planning time, site-based decisionmaking) are fully funded and are an integral part of both special and regular education processes.
9. All regular and special education teacher candidates must receive integration issues training.
10. Districts must offer consistent and meaningful in-service training scheduled during the school day or through subsidized workshops.
11. The organizational structure includes district- and school-based planning and strategic decisionmaking.
12. Assessment is done by everyone involved in the program using appropriate assessment procedures (e.g., portfolios and classroom observations).
13. The program includes administrative support for staff, parents, and programs, ongoing support for educational strategies, materials and discipline, and accessible facilities.
14. Class size is weighted according to the the needs of the students and reduced as necessary.
15. Where collective bargaining exists, the process is used to address integration issues, policies, and procedures as necessary or appropriate.

Participants also agreed that the placement of students with special needs in regular classrooms has a better chance of being successful when the following instructional activities are employed:

1. Special needs and regular education students are collaboratively involved in the learning process.
2. The teaming of regular education and special education teachers (support, collaboration, consultation) takes place.
3. Learning is student-centered with a substantial portion of the program devoted to the active participation of the student.
4. Parents are fully informed and involved in the education of the student.
5. All curriculum, instruction activities, and classroom tools, are continually evaluated by teachers, administrators, guidance counselors, and parents, as to how well they enhance learning outcomes for all students.

State Policy — Its Effect on Service Delivery to Special Education Students in Regular Classrooms

Tom B. Gillung, Ph.D.
Acting Director
Division of Education Support Services
Connecticut State Department of Education
Theresa C. DeFrancis
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Office of Legal and Governmental Affairs
Connecticut State Department of Education

State policy directives form the framework for education programs and services provided to children. Rules, regulations, funding patterns, and interagency agreements—that all those elements that are necessary to support the vision of public education—develop from the articulated policies of the state governing body for public education.

In Connecticut, the State Board of Education has adopted a Common Core of Learning "as its standard of an educated citizen and its policy on the skills, knowledge, and attitudes that are expected of Connecticut's public secondary school graduates."

> *The Common Core has been developed with an understanding that students begin their schooling at different levels of readiness and some have developmental handicaps as well. It is also acknowledged that students have different interests and aspirations. Recognizing these differences, however, does not justify the development of a different Common Core for each student. To the contrary, the goal of each student developing to his or her fullest potential argues for the creation of one Common Core that has the highest expectations for each child. [Connecticut's Common Core of Learning, adopted by the State Board of Education, January 1987]*

Outcomes that have been identified for all students include the mastery of a common set of skills, competencies, and attitudes essential to the total development of the student. The Common Core is a statement of the student outcomes expected as a result of the entire K-12 experience.This policy recognizes the needs of children with disabilities without segregating those needs as separate and distinct from those of the regular education population. Policy specific to the needs of children with disabilities enhance, rather than diminish, the child's capacity to achieve the expected outcomes of the Common Core. By accepting the notion that the achievement of state education policy outcomes is our objective, and that state policy provides the framework for the achievement of these outcomes, then considerable attention must be focused on state statutes and regulations to determine whether they promote or prevent the achievement of those policy goals. The successful inclusion of special education students in the regular education classroom promotes the universality of the Common Core. In order to determine if inclusion can take place, four areas of state policy deserve attention: state certification; state funding; state monitoring activities of special education programs and services; and service coordination between state and local agencies that provide support to children with disabilities.

In order to determine if inclusion can take place, four areas of state policy deserve attention: state certification; state funding; state monitoring activities of special education programs and services; and service coordination between state and local agencies that provide support to children with disabilities.

State Certification

State certification is the process by which agencies establish standards for those individuals responsible for the education of students. The following questions are critical in shaping state certification requirements. How do state certification policies encourage or discourage the inclusion of special education students in the regular education classroom? Must a child with a disability only receive services from a

certified special education teacher? Can a certified special education teacher spend time in a regular classroom working with both regular education children and children with disabilities without violating state certification policies?

In addition, states also need to pay particular attention to certification requirements for the provision of services to preschool children with disabilities. If the modeling of appropriate behaviors is the activity we seek to encourage in children and if integration is the method through which we provide role models, then a decision must be made by State Boards of Education to determine what type of expertise is needed by personnel who will facilitate the delivery of services to preschool children with disabilities.

State Funding

As much as one would like to believe that funding doesn't drive educational programming decisions, funding does in fact directly impact the expansion or limitation of current educational programs.

As much as one would like to believe that funding doesn't drive educational programming decisions, funding does in fact directly impact the expansion or limitation of current educational programs. One needs to ask, do current state funding practices encourage or discourage the inclusion of children with disabilities in the regular education classroom?

For example, categorical funding lends itself to the establishment of "pullout" models or separate service delivery systems. Populations serviced through categorical funding frequently are rigidly defined, creating funds whose uses are highly restricted. These restrictions—identified by such terms as "supplemental funding," "excess cost," "matching," "comparability," and "maintenance of effort"—are created to ensure that funds aren't used to replace or supplant funds that could be used for other categorically-classified students. Many students grouped in these categories receive similar services through the different funding sources. Rather than provide opportunities for flexible and innovative programming, the prescriptive requirements of categorical funding inhibit efforts to include students with disabilities in regular education programs.

While the structure of current funding systems should be reconsidered, persons involved in educational program planning and decisionmaking can participate in "creative accounting." Categorical funds can often be used on a "split" or "shared" basis with other funds, creating some flexibility in the use of available resources, yet not without the burden of increased administrative reporting.

For example, some students with disabilities may need individualized support from a special education teacher aide in order to participate in regular classroom activities. There are other students who are not disabled, however, who would also benefit from the services of that teacher aide. In this instance, local educational agencies could proportionately split the salary of the teacher aide among the funding sources available for the various populations to be served by the aide. An audit-trail that would document the teacher aide's time and effort toward providing services to both populations would be necessary.

Another example uses funds to purchase a specialized piece of technology—such as a closed-circuit television reading system or a computer—to assist students with disabilities so that they may participate in regular education activities. These technologies may also assist other students who are not disabled. With some accounting provisions, the purchase and use of instructional equipment can be shared among various student populations and funding sources.

In order to provide efficient and effective funding systems at both the federal and state levels, flexibility must be built into the funding structure so funds may be used in a coordinated manner for specific and unique needs. Only minimal requirements should be maintained to ensure that recipients of the funds, the schools, do not misuse funds earmarked for designated populations.

Monitoring Process

How do federal and state activities that monitor the delivery of services to students

with disabilities hinder or aid the inclusion of these students in regular education programs? Special education programs for students with disabilities are probably the most prescribed and regulated programs at both the federal and state levels.

These rigid requirements reduce the school's flexibility to administer programs that accommodate unique circumstances. Program variations that meet specific needs and innovations that implement new effective practices are oft times constrained—because of the necessity to follow the letter of the law. As a result, many local school programs have become more concerned with regulatory compliance than with instructional practices, leadership, and student achievement.

On-site monitoring is a tool used by federal and state education departments to oversee special education programs. The standards by which programs are measured for compliance most often reflect the prescribed, largely procedurally-oriented laws and regulations. While certain procedural requirements ensure that important activities occur (such as the participation of students with disabilities in regular education activities), many of the measures have no direct linkage to learning outcomes.

Once laws and regulations become more outcome-oriented, the monitoring process will become more meaningful and helpful. Even without the changes in law, however, federal and state level monitoring processes can be restructured.

First, federal and state departments of education can focus their resources and energies on monitoring those regulations and standards that relate to instruction and student learning. The question needs to be asked, "Does this rule significantly impact on student learning and the district's ability to instruct appropriately?" Next, outcome-oriented measures need to be established that give some indication of how well school programs promote improvements in student learning. Finally, the outcome measures should be used to determine the frequency and focus of monitoring activities.

For example, if school programs are achieving positive outcomes, should states be so concerned about focusing on process requirements? The rules and requirements aren't the ends, they are the means to ensure a particular outcome. On-site monitoring of schools that are doing well may be conducted less often or may be postponed altogether for as long as the school continues to perform well according to established standards. Schools might conduct their own self-monitoring review using their own staff, staff from other schools, or members of the community and generate their own report of problems and corrective actions—a copy of which could be sent to the state department of education. The department of education could review the self-monitoring report and, if necessary, send department staff to the local district to verify sample data, to review areas of concern, and to provide technical assistance. Schools that have not performed well may receive even more frequent monitoring visits. For any on-site monitoring visit, indicator measures and other available information should be used to tailor the frequency and the focus of the monitoring visit to the school.

Special education programs for students with disabilities are probably the most prescribed and regulated programs at both the federal and state levels.

Service Coordination

Interagency agreements

States must re-examine interagency agreements and remove barriers that hinder the inclusion of children with disabilities in the public school building as well as the regular classroom. Cooperation among agencies that provide services to children and their families (e.g., children and youth services, education, mental retardation, income maintenance, health) is critical to ensuring a coordinated effort in the delivery of educational and family support services that is responsive to inclusion. Children who are removed from their families and placed in residential facilities for noneducational reasons, such as care and custody, must continue to have available the continuum of educational placements from the least restrictive to more restrictive settings; interagency agreements should support this option. Additionally, it is critical that jurisdictional

boundaries be eradicated so that the resulting interagency cooperation will reduce the wasteful practice of court turf battles and will foster the direct provision of services to needy children. No child should be without services while state agencies battle over whose responsibility it is to provide those services.

Personnel development

By educating the people who will provide services or assist in their delivery, state education agencies may facilitate service coordination. A comprehensive system of personnel development (CSPD) ensures both the effective preparation and the ongoing professional development of educators, service providers, and parents. The statute mandating appropriate educational services for children with disabilities can be achieved only if teachers, other professionals, and parents are current in their knowledge of the instructional and support services that are necessary and available. Through the development and implementation of a CSPD at all levels, an adequate supply of qualified personnel can be created, and improvement in the quality of educational services delivered to children with disabilities can be realized.

No child should be without services while state agencies battle over whose responsibility it is to provide those services

A CSPD must include a component that supports professional practice (i.e., provides the practicing professionals with the skills, knowledge, and resources to deliver effective educational services to students with disabilities). When the focus clearly is placed on the successful inclusion of students with disabilities in regular education classrooms, this knowledge and skill base must emphasize instructional and program design strategies that accommodate unique learning needs within the regular education curriculum.

The comprehensive personnel development that practicing professionals need will require a significant coordinated effort on the part of the professional associations, state and local educational agencies, colleges and universities, the federal government, and the private sector. The professional practice component includes:

- a system for the preparation and continuing education of regular and special education and related services personnel;
- procedures for acquiring and disseminating significant knowledge derived from education research and practice to teachers, administrators, and related services personnel; and
- procedures for adopting promising practices, materials, and technology where appropriate.

Under the Individuals with Disabilities Education Act (IDEA) PL 101-476, states are required to establish CSPDs that include these elements of support for professional practice. IDEA is clear that these are minimum requirements and each state is expected to develop its own system and expand these requirements as necessary to ensure that it has the capacity to meet its own unique needs.

Many models are evolving. In New York, regulatory changes allow special educators to consult with regular educators and to provide special education services to eligible students in regular education classrooms. The regulatory changes, accompanied by statewide in-service training, were designed to support professional practice. Connecticut's CSPD includes a major emphasis on special education/regular education collaboration that addresses student needs prior to referral to special education. The student study team initiative in Connecticut was supported by extensive statewide training for regular and special educators and administrators.

Stakeholders and Their Role in State Policy

In summary, the development of policy, the implementation of programs and services according to rules and regulations, and the provision of support for implementers and consumers of those programs and services is in itself a system that must be integrated and flexible so as to react quickly to change.

In order to do so, it is critical for policymakers to include those individuals who must implement policy on a day-to-day basis in the development of policy. It is not sufficient for "experts" in the field of

educating the disabled to be solely responsible for setting state policy. For parents and educators who have a personal investment in the way things are done in the classroom, there must exist the credible opportunity to influence the creation of policy that may dramatically change the way in which children with disabilities are taught in public schools. The consumers of this education—the children—must also be afforded the opportunity to participate in the development of policy.

Implementers and consumers know firsthand what's working and what's not; their dissatisfaction becomes the impetus for changes to the rules and regulations that prescribe their program activities. At each level—from the federal and state policymakers, through parents and teachers, to students with special education needs—each stakeholder must be sensitive and responsive to the changing needs of the other. A dynamic system, quick to react to the changing needs of children with disabilities, must replace a static system still wedded to a territorial distrust whose time has come and gone. By eliminating procedural barriers and fostering communication between stakeholders, we can move toward an integrated service system that enhances the inclusion of children with disabilities in the regular classroom.

The authors want to express their appreciation to Chuck Russell from the Texas State Department of Education, Lynn Cook from National Association of State Departments of Education, and Marianne Kimer from the Special Education Resource Center, and the Connecticut State Department of Education, for their assistance in developing this presentation.

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ADDENDUM A

Connecticut has successfully included parents, educators, and students in a variety of projects that address the way it look at the education of children with disabilities. Four activities undertaken by the Connecticut State Department of Education (CSDE) deserve mention.

1. A Comprehensive Plan for Elementary, Secondary and Vocational, Career and Adult Education, the "Challenge of Excellence," is a policy plan for public education for the years 1991-95. The "Challenge" document was drafted by a broad-based spectrum of individuals who have both a personal and professional interest in education. An identified goal of the Connecticut Board of Education is to provide a continuum of special education programs while also ensuring that students with disabilities are educated in the least restrictive environment by supporting, whenever appropriate, integration into the regular school environment.
2. A publication entitled *Series of Guiding Principles on Educating Children with Disabilities in the Least Restrictive Environment* was recently published. An adhoc committee, that included educators and parents, outlined mandatory requirements and supplementary goals to support the efforts of increased integration in the public schools. It is critical to recognize that without the commitment of the implementers, teachers, and administrators—and the support of consumers, parents, and children—the concept of providing education in the least restrictive environment will remain just that, a concept, with little hope of implementation.
3. The CSDE developed and implemented statewide evaluation of special education services. The state recognized the need to look at all outcomes of special education programs that would shed light on the usefulness and effectiveness of those programs.

As developed by Dr. James Wade, of the CSDE, the Plan for Statewide Evaluation of Special Education Programs is intended to:

- assess the impact of educational programs by providing reliable information on outcomes.
- operate in ways that minimize intrusion into student instructional time and minimize the "human" cost associated with the burden of data collection.
- provide useful benefits tangible to all participants including local program managers, district level administrators, and state policymakers.
- provide a useful framework for identifying important outcomes for special education as well as regular education programs for all students enrolled in public schools.
- acknowledge the complementary and reciprocal relationship between special and regular education services provided to students in Connecticut.

4. CSDE is developing a symposium on special education to identify what special education should be in the year 2000 and beyond. It will be attended by individuals representing the business community, parents, various advocacy groups, teachers, administrators, university personnel, and education department consultants. The symposium, while clearly focused on special education, has not forgotten the total public school system and the populations it serves.

Addendum B

The Connecticut Department of Education, through its Special Education Resource Center, has invested heavily in programs designed to provide educators and parents with the knowledge and skills necessary to promote integration. In collaboration with parent advocacy groups and teacher unions, staff consultants from CSDE have facilitated training sessions designed to give participants a working knowledge of the rules and regulations and best practices available. The goal is to encourage active involvement in the design and implementation of programs for children with disabilities in the least restrictive environment.

Of particular interest is the Parent Educator Partnerships (PEP) program adapted from a similar project of the Ohio Coalition for the Education of Handicapped Children. The PEP program is designed to facilitate communication between parents and local education agencies (LEAs). In the early stages of the child's referral to special education, the parents are personally contacted and informed about the special education process. This program can initiate an informed relationship that continues throughout the evaluation and IEP formulation processes. Ultimately, it may result in a constructive, close, working relationship that begins with the legal requirements of informed consent and continues throughout the child's involvement in special education.

This initial contact is crucial in fostering parental perceptions of the school system as caring and interested. It is anticipated that this honest and concerned exchange on the front end of the referral process will dramatically diminish the incidence of confrontations that result in IEP rejections and appeals and will also ensure more positive parental involvement in school efforts.

The PEP program has been developed in cooperation with selected pilot LEAs, the State Department of Education-Bureau of Special Education/Pupil Personnel Services, the Special Education Resource Center, the Learning Disabilities Association of America, and the Connecticut Parent Advocacy Center. Through the directors of special education in participating LEAs, two or three parents from each LEA are selected to receive intensive training as PEP parent representatives (PEP Reps.). PEP Reps. are available upon request to assist other parents whose children are referred to special education. Participating LEAs alert parents to the availability of this program upon their child's initial referral to special education.

Integrating Students with Special Needs in the Regular Education Classroom

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of America

The Learning Disabilities Association of America (LDA) is a nonprofit, parent/professional organization with over 50,000 members and more than 700 local and state affiliates. LDA was organized in 1964 for the purpose of promoting and supporting the education and general welfare of individuals with learning disabilities and their families.

LDA supports the federal definition of specific learning disabilities found in the Education of All Handicapped Children Act, Public Law 94-142 (as amended by PL 99-147 and PL 101-476), as follows:

> *'Specific learning disability' means a disorder in one or more of the basic psychological processes involved in understanding or in using language, spoken or written, which may manifest itself in an imperfect ability to listen, think, speak, read, write, spell, or to do mathematical calculations. The term includes such conditions as perceptual handicaps, brain injury, minimal brain dysfunction, dyslexia, and developmental aphasia. The term does not include children who have learning problems which are primarily the result of visual, hearing or motor handicaps, mental retardation, emotional disturbance, or environmental, cultural, or economic disadvantage.*

In March 1986, LDA adopted the following description of this condition:

> *Specific Learning Disabilities is a chronic condition of presumed neurological origin which selectively interferes with the development, integration, and/or demonstration of verbal and/or nonverbal abilities. Specific Learning Disabilities exists as a distinct handicapping condition and varies in its manifestations and in degree of severity. Throughout life, the condition can affect self-esteem, education, vocation, socialization, and/or daily living activities.*

In 1984, the U.S. Department of Education, Office of Special Education and Rehabilitative Services, introduced the Regular Education Initiative (REI) under the title *Educating Children with Learning Problems: A Shared Responsibility.* The LDA originally addressed the REI in a position statement in March 1986 which called for pilot programs to test the efficacy of the REI concept. Considerable concern, as expressed by the membership of LDA regarding the inappropriate placement of students with learning disabilities in regular classrooms prompted the LDA Board of Directors to again address this issue in April 1991 and disseminate the following statement.

Statement of the Regular Education Initiative

In 1984, the U.S. Department of Education, Office of Special Education and Rehabilitative Services, introduced the Regular Education Initiative (REI) under the title, *Educating Children with Learning Problems: A Shared Responsibility.* This initiative is being interpreted by some school districts and state education agencies as a mandate to educate all students with disabilities in the regular classroom "without regard for any potential harmful effect on the child or on the quality of services which he or she needs." (34 Code of Federal Regulation 300.552 D) In addition, the REI discourages the referral and identification of students with learning disabilities.

The REI has led to a decrease in the number of students identified with learning disabilities who receive special education and related services in settings other

The regular classroom is one of many educational placement options, but it is not a substitute for the full continuum of alternative placements necessary to ensure the provision of an appropriate education for all students with learning disabilities.

than regular classes. The regular classroom is one of many educational placement options, but it is not a substitute for the full continuum of alternative placements necessary to ensure the provision of an appropriate education for all students with learning disabilities.

Appropriate placement is the least restrictive environment (LRE) within a full continuum based on the student's individualized education program (IEP) goals and objectives. The LDA believes that the regular classroom is not the least restrictive environment for every student. The LRE is one of several procedural safeguards found in PL 94-142, the Individuals With Disabilities Education Act (IDEA) PL 101-476, and Section 504 of the Rehabilitation Act of 1973. These laws ensure that placement decisions are based on the unique needs of the individual with learning disabilities rather than administrative convenience or district policy.

Most students with learning disabilities currently are taught in regular classrooms for some part of their school day. Based upon the experiences of its membership, the LDA disagrees with the assumption that regular education teachers in traditionally-organized schools can improve overall class performance while at the same time meeting the special needs of the increasing numbers of students with learning problems.

Classroom teachers must be adequately trained and have sufficient professional support to guarantee that students with disabilities receive the free and appropriate education to which they are entitled. Teacher certification requirements must be changed to ensure that regular education teachers are adequately taught techniques for teaching students with learning disabilities and are taught the types of modifications that are necessary if these students are to succeed in the regular classroom.

The LDA recognizes the need for educational reform to improve the education of all students. We believe it is imperative that every student with a learning disability be identified and have a comprehensive IEP regardless of the service delivery model. This will ensure that appropriate classroom modifications are made and specialized instructional methods are provided allowing these students to learn more effectively.

Factors Related to Effective Education of Students with Learning Disabilities

Since the introduction of the Regular Education Initiative, LDA has spent considerable time and energy considering the positive and negative aspects of this concept. The following factors are extracted from a paper developed from extensive deliberations of the leadership of LDA and other member organizations of the National Joint Committee on Learning Disabilities.

1. The educational, social, and emotional needs of the individual; the types of disabilities; and their degrees of severity should determine the design and delivery of educational programs and services.
2. A continuum of educational placements, including the regular education classroom, must be available to all students with learning disabilities and must be flexible enough to meet their changing needs.
3. Specialized instructional strategies, materials, and appropriate accommodations must be provided as needed.
4. Because the educational, social, and emotional needs of students with learning disabilities can change over time, systematic and ongoing review of the student's progress and needs is essential to make appropriate adjustments in the current educational program and related services.
5. Because learning depends on the quality of the programs and services provided, systematic and ongoing evaluation of programs and their effectiveness in producing desired long-term outcomes is essential.
6. Due to the chronic nature of learn-

ing disabilities and the changes that occur across the lifespan of the individual, coordinated educational and vocational planning are required. Provisions must be made to facilitate transitions that occur at all major junctures in the student's education (e.g. elementary to secondary school, secondary school to postsecondary training and/or workforce).

7. Social acceptance has a significant impact upon the self-esteem of students with learning disabilities. Social acceptance of these students requires the sensitivity of the entire school community.
8. To ensure that students with learning disabilities are effectively integrated into the mainstream, the building principal must set the tone for a positive and accepting learning environment for all children.

Problems Related to the Education of Students with Learning Disabilities in the Regular Education Classroom

1. The regular education teacher is presented with an increasing number of students with diverse cultural and linguistic backgrounds, developmental variations, disabilities, family and social problems, and large class size. These factors and the issues they represent complicate the integration of students with learning disabilities into the regular education classroom.
2. Many regular education teachers are not prepared to provide the kinds of instruction that benefit a wide diversity of students.
3. The characteristics of individuals with learning disabilities (e.g., inattentiveness, difference in performance on a day-to-day basis, inappropriate responses and/or behavior, impulsivity) and the ways in which they interact with curricular demands are not understood by all school personnel.
4. Teachers often are required to adhere rigidly to a prescribed curriculum and materials and, therefore, may not have the flexibility to address the unique needs of students with learning disabilities.
5. Adequate support services, materials, and technology often are not available for either the teacher or the student with learning disabilities.
6. Time and support for the ongoing planning and assessment that are needed to make adjustments in students' programs and services are often inadequate.
7. Schools rarely have a comprehensive plan to evaluate the effectiveness of programs and services provided for students with learning disabilities, especially those served in regular classrooms.
8. Coordinated planning is lacking for students with learning disabilities as they make transitions from home, to school, and to work; across levels of schooling; and among educational settings.
9. Communication concerning students with learning disabilities among administrators, teachers, specialists, parents, and students is often insufficient to facilitate the development and implementation of effective programs.

Recommendations Essential to Providing Appropriate Education for Students with Learning Disabilities in Regular Education Classrooms

1. Establish systemwide plans for educating students with learning disabilities in the regular classroom when such placement is appropriate. The responsibility for developing plans must be shared by regular

and special educators, parents and student consumers of the services. Once developed, a plan must be supported at all levels of the educational system.

2. Establish mechanisms for the development of collaborative relationships among professionals, parents, and students.
3. Establish instructional conditions and environments that allow teachers to capitalize on the strengths and remediate or compensate for the weaknesses of students with learning disabilities. These should include:
   - reasonable class size;
   - reasonable paperwork requirements and noninstructional assignments for teachers;
   - appropriate physical environments, including attention to noise levels;
   - sufficient time for teaching and collaborative planning;
   - appropriate materials and technology; and
   - flexibility in determining the array of skills necessary for attainment of overall curricular objectives.
4. Ensure the availability of services needed to support the education of students with learning disabilities in the regular education classroom, including;
   - appropriate related services for students;
   - consultation services for teachers;
   - direct services for students from teachers certified in the area of learning disabilities and other qualified professionals such as school psychologists, counselors, speech-language pathologists, reading teachers, audiologists, and social workers; and,
   - teaching assistants/aides trained to work with students who have learning disabilities.
5. Provide time and support for planning and communication among and between professionals and parents.
6. Ensure the involvement and participation of the regular education classroom teacher in the development and implementation of the individualized education program (IEP) for students with learning disabilities served in regular education classrooms.
7. Establish a systemwide plan for helping students with learning disabilities to make transitions from home, to school, to work, and to life in the community.
8. Conduct district and school-building level program evaluations of regular education classroom programs serving students with learning disabilities that focus on student progress and effectiveness of instruction. Based on the evaluation, modifications to the program should be made as needed.
9. Require in-service programs for all school personnel to give them the knowledge and skills necessary to provide education for students with learning disabilities in the regular education classroom. The in-service program should:
   - be research validated;
   - use components other than a single workshop format; and
   - include activities to help participants learn strategies to meet individual needs of students with learning disabilities in the regular education classroom, and to promote collaboration.
10. Provide in-service programs for those school personnel who have not previously had such training in:
    - child and adolescent development;
    - individual differences;
    - spoken and written language development and disorders;
    - cognitive development and learning theory;
    - social and emotional development;

- cultural diversity;
- the nature of learning disabilities;
- informal assessment;
- validated instructional strategies;
- adaption of instructional materials and teaching techniques;
- classroom management;
- collaboration, consultation, and team teaching;
- multidisciplinary team interaction; and,
- parent and family support.

Integration of Service Options

The LDA has long maintained that educational programs for students and learning disabilities would be more effective and efficient if the various components of education—including special education, regular education, therapies, supportive services, and parent involvement—were integrated rather than planned and administered separately. Integrated education is desirable for all students whether eligible for specialized services prescribed by Public Law 94-142 or not.

In our public schools today, students with various problems and needs are in the regular classroom. These may be students with cultural deprivation, economic disadvantage, slow learning ability, poor academic preparation, motivational deficiency, giftedness, special talents, and/or disabilities. Unfortunately, many of these students are not having their needs met in the regular classroom mainly due to barriers including, 1) attitude and philosophical beliefs; 2) administrative and organizational systems; 3) limited resources; 4) instruction and delivery; and 5) personnel preparation. Another major reason students' needs are not met is the lack of integrated planning and delivery of all resources and available special services. All of these factors are confounded by the present economy and the increased demands for educational excellence, competency testing, higher grading standards, and diploma and graduation criteria.

The LDA applauds the attempt to provide appropriate services in the regular classroom for students with a wide range of needs. When appropriate efforts have been in the regular classroom for a reasonable period, as determined by the educators and the parents, the LDA believes that those students who have not been properly identified as having a disability should have a special education evaluation. Consideration should be given to the student's eligibility for special education services and alternate placement options.

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California Teachers Association Special Education Coalition Building

Marlyn Franklin and
Ruthmary Cordon-Cradler
California Teachers Association

California is faced with increasing demands to provide special education services for students with increasingly complex needs. These demands are occurring during a time of significant state underfunding for special education, combined with an equally significant special education teacher shortage in the state.

Concurrently, there has been a movement across the nation known as the Regular Education Initiative (REI) that is designed to place a greater emphasis on providing services to special education students within the regular classroom. The REI has been enthusiastically embraced by the California Department of Education as a vehicle to resolve the financial staffing and societal pressures affecting the delivery of special education services.

The California Teachers Association Response

The Foundations

The California Teachers Association (CTA) Board of Directors decided that an effective program needed to be well researched and planned. Therefore, they appointed a task force, comprised of regular and special education teachers, to study the issue of the REI's impact on teachers and other school personnel serving special education students and on the students themselves. The task force formulated a set of guiding principles, *The Foundation of Excellence in Special Education Programs*, that was subsequently adopted by the CTA State Council. This report was disseminated to all related professional organizations in California. The positive and enthusiastic response to the document promoted CTA to organize a statewide coalition meeting.

Special Education Coalition

CTA called a coalition meeting of other major educational organizations with an interest in special education in California to seek input and consensus on the *Foundations*. This group met three times and came to consensus on the revised *Foundations* (see page 30).

The Coalition also appointed a steering committee that meets approximately six times a year. The steering committee plans the annual meeting of the Coalition, disseminates information to Coalition members, and meets with appropriate policymakers and the California Department of Education when the need arises.

Special Education Summit

CTA then called a special education summit that expanded the Special Education Coalition to include additional parent groups and state agencies. This group has had two meetings to review the *Foundations* and to formulate parameters for the implementation of any new programs. The group has also set annual meeting dates.

The State Advisory Committee

The work of the CTA on developing the *Foundations* convinced State Superintendent Bill Honig to gather together Coalition participants and other stakeholders for an advisory committee. The field advisory committee developed the California Department of Education's guidelines for the implementation of SB 1274 restructuring legislation, as well as the Every Student Succeeds (ESS) initiative which is funded under SB 1274 legislation. This advisory committee significantly impacted the design of these two programs in California.

The Every Student Succeeds initiative of the California Department of Education is

The REI has been enthusiastically embraced by the California Department of Education as a vehicle to resolve the financial staffing and societal pressures affecting the delivery of special education services.

being piloted as part of a statewide, legislated, school restructuring project. SB 1274 is the new state legislation that is providing funding for approximately 200 schools to plan for the restructuring of their own site. Of these schools, 46 are designated as ESS schools that are focusing their restructuring efforts on better meeting the needs of special education and other at-risk students. Every Student Succeeds encourages the implementation of the Regular Education Initiative (REI).

Members of the Coalition played an active role in the development of the ESS guidelines and in the selection of the ESS pilot schools and the SB 1274 pilot schools. The Coalition organizations also insisted that the ESS pilot be evaluated by an outside evaluator. The California Department of Education then contracted with the Far West Laboratory for Educational Research to conduct the independent evaluation. The Coalition steering committee plans to meet periodically with the Far West evaluators once the pilot projects begin.

New resources must be made available for training, collaboration, planning, support for the classroom teacher, and the provision of time during the work day for collaboration to take place.

The Foundation of Excellence for Special Education Programs

The Coalition for Students with Special Needs published a document that stated its beliefs that the commendable goal of reaching all "at risk" students at an early age requires training, cooperation, and the goodwill of the entire educational community at the school site level and the support of all levels of administration. Also to be successful, these efforts must be fully funded. In addition, this must be accomplished through a consensus process that the full understanding of all site-level personnel of what change is possible given full disclosure of the available resources. Finally, new resources must be made available for training, collaboration, planning, support for the classroom teacher, and the provision of time during the work day for collaboration to take place.

Since the Coalition believes in the human, civil, and educational rights of all students, it has applauded the attention now being focused on those who are labeled "at risk," and any program must address the fact that these students have learning difficulties stemming from social and economic conditions, and do not in many cases meet the eligibility standards for special education programs. These students need other specialized services to help them reach their full learning potential. The Coalition has announced it will not tolerate reform that takes services away from one group of needy students to meet the needs of another.

The Coalition has also taken the position that there must be a greater emphasis in regular education on the collaboration between regular education teachers and special education teachers on all matters related to site-based decisionmaking, integrated models, or other vehicles of school restructuring.

The Coalition recognized many children with exceptionalities can benefit from the instruction provided by general education, but some may require additional support services or alternative educational settings because of their unique learning styles or needs which require a differentiated curriculum.

Decisions about the appropriate education for all students with special needs including those who are labeled "at risk," bilingual, learning disabled, etc. must be individually determined and made with the active involvement of the varied professionals, including teachers, who have knowledge about the needs of the child and the educational environment in which the child might be placed. In order to accomplish this, there must be a full array of services and a full range of delivery models available to exceptional children. The collaboration of special and regular education staff on the integration of special education students can help improve and expand the services available to exceptional students and, we hope, to all students.

There should be continued integration of exceptional students with special needs on regular school campuses. There should be continued integration efforts that are consistent with the individual educational needs of these students, the educational

needs of the other students with whom the child will be educated, and the ability of the involved stakeholders to provide the education all of the students require.

The principle of least restrictive environment, within the context of individual education programs, ensures access by each student having special needs to a full array of quality special education alternatives. The continuum of services must be removed from the "deficit-remediation" model to one that provides access to a full education to all children with all manners of disabilities and/or racial, ethnic, and cultural backgrounds. The focus should be on the student's needs, not on the available program. The emphasis is on having a program driven by the intent of PL 94-142 that is to meet the needs of the individual child.

Foundations *Building Blocks*

1. The regulations of the Education for All Handicapped Act (PL 94-142) must be maintained in such a format that protects parent rights, due process, Individualized Education Program (IEP) timelines, eligibility criteria, and the evaluation process. Consideration should be given to modifications that reduce excessive paperwork while at the same time preserving the aforementioned quality education, protections, and rights.
2. The design of any new programs must include both appropriate pre-referral intervention strategies and, when appropriate, a referral to special education programs and services. Referrals will be implemented in a timely manner for those students who need them. Delays in access to special education services for eligible students must not occur.
3. Special education eligibility standards must be maintained. Students who have met the eligibility standards for existing special education services must be assured an educational program to meet all of their educational needs.
4. New pilot programs must address the social, emotional, and life skills as well as the cognitive needs of students at all levels from preschool through age 21 and must provide a curriculum to meet those needs. In addition, these pilots should be developed by a team that includes general and special education personnel such as special day class teachers, resource specialists, designated instruction and services providers, and support staff. Before changes in services are implemented, parents must have the opportunity to participate in the planning process (over and above the IEP).
5. Mandated special education programs currently are not fully funded at either the state or federal level. These resources must not be diverted away from special education students in order to focus or refocus services to other at-risk students.
6. Any proposed education reforms must provide adequate funding and must be piloted and evaluated on a carefully controlled basis before statewide implementation.
7. Services and programs should emanate from the diversity of need and characteristics of the students at any given school site including those for whom the site is not their home school. All exceptional individuals, as defined in PL 94-142, shall be considered. There must be a fully funded continuum of service options to address the needs of all students with exceptional needs.
8. Consideration should be given to the special education local planning areas (SELPA), the county office, and itinerant personnel and the roles that each will play in the development of district or site-level changes. These individuals bring expertise to the site that should be used in developing school plans. When planning meetings, consideration should be given to the schedules of these individuals.

The principle of least restrictive environment, within the context of individual education programs, ensures access by each student having special needs to a full array of quality special education alternatives.

9. Staff development programs based on local needs should be provided for regular and special education staff and other site personnel. These programs must be designed and implemented by classroom teachers, support staff, and other participating school personnel and should allow for diversity in activities, should be scheduled to meet the needs of students and personnel throughout the school year, and should be provided with an appropriate budget.
10. Implementation of strategies—such as collaborative teaching, student study team planning, and any other support activities—must be an integral part of both the regular and special educational processes, be fully funded, and occur within the parameters of the work day. The funding required must not be taken from existing resources intended for direct services to students.
11. Any redefinition of roles and responsibilities must be accompanied by changes in numbers of personnel as needed to maintain quality services to students with exceptional needs.
12. Credentialed personnel shall be qualified and competent, therefore, the credentialing process and on-site training must be directly related to the specific needs of the students being served and reflect standards supported by current research and applied practice. Credentialed personnel providing special education services shall possess demonstrated specialized and disability-specific competencies and credentials appropriate to meeting the exceptional needs of students as identified in their IEPs.
13. A system of interagency collaboration, including the coordination of service delivery aimed at the whole child, must be in place. This process must address the needs of handicapped children through the continuum of services from the school site level to special centers.
14. California must take a proactive approach to recruit and retain quality credentialed personnel. This undertaking should be a collaborative effort between local education agencies, institutions of higher education, appropriate state agencies and professional organizations.
15. The process of student placement in special education programs must consider a reformation of LEA boundaries when considering low incidence disabilities. Pilot programs providing cooperative service arrangements should be instituted.
16. Before reform and implementation, assessment of existing program options and how they are used must take place so that direct services and staff and curriculum development may be enhanced. Districts, county offices, and SELPAs should be able to access these resources.

The Coalition for Students with Special Needs has stood ready and committed to participate fully in dialogue and development that will produce—through adequate funding and collaboration at the school site level—positive changes that appropriately address the needs of all students in California.

Cooperative Learning — A Tool for Integrating Students With Special Needs Into the Regular Classroom

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When students with special needs enter a regular education classroom, they may open the door to a great deal of anxiety. The regular education teacher may be anxious about how to help the new student gain acceptance while still maintaining academic excellence in the classroom. Special education students may be anxious about how they will be viewed by the other students. Regular education students may be anxious about how this newcomer will fit in.

Mainstreaming is based on the assumption that simply placing all types of students in the same school and classroom will facilitate positive relations and attitudes among students. Yet, when special education students are placed into the regular classroom, acceptance or rejection can follow. Special needs students might be stigmatized, stereotyped, and rejected. Worse, they may be ignored or treated paternalistically. And yet, the opportunity is also there for promoting constructive relationships between students with disabilities and regular education students, thereby enriching the lives of all the students in the classroom.

What makes a difference? How do teachers, burdened by academic responsibilities, help foster positive exchanges among students with disabilities and regular education students? Research indicates that a key factor to answering this question is found in how teachers structure the interaction among all students as they work toward mastering academic objectives in the classroom. (Deutsch 1962, Johnson and Johnson 1989a).

Social Interdependence in the Classroom

Teachers in any classroom have three choices in the way they can have students interact while working in the classroom. They may structure academic lessons so that students engage in a *competitive* win-lose struggle to see who is learning the best, learn *individualistically* on their own without interacting with classmates, or work *cooperatively* in pairs or small groups to help each other master assigned material.

When students are working *competitively*, their goal achievements are negatively correlated. This means that when one student achieves his or her goal, all others with whom he or she is competitively linked fail to achieve their goals. Students work against each other to achieve a goal that only one or a few students can attain. Students are graded on a curve, that requires them to work faster and more accurately than their peers to achieve outcomes that are beneficial to them but detrimental to others. They either study hard to do better than their classmates or they take it easy because they do not believe they have a chance to "win."

When students are working *individualistically*, their goal achievements are independent. This means that the goal achievement of one student is unrelated to the goal achievement of others. Students seek outcomes that are personally beneficial and they ignore as irrelevant the goals of their classmates. Students work by themselves and their work is evaluated by comparing their performance with a preset standard or criteria. Each student has a set of materials, works at his or her own speed, and is supposed to ignore the other students.

For the past 45 years, competitive and

Mainstreaming is based on the assumption that simply placing all types of students in the same school and classroom will facilitate positive relations and attitudes among students.

individualistic goal structures have dominated American teaching. These patterns establish the teacher as the only human learning resource available in the classroom. Teachers then find themselves caught in a struggle to be the sole provider of motivation, socialization, and appropriate learning for every student. It is no wonder that adding a student with disabilities to a classroom can increase teacher and student anxiety.

There is, however, a third option. Teachers can structure lessons *cooperatively* so that students work together to accomplish shared learning goals. In this cooperative learning situation, the goals of the students are positively correlated, so students perceive that they can reach their learning goals if and only if the other students in the learning group can also reach their goals. Students seek outcomes that are beneficial to all those with whom they are cooperatively linked. Students are assigned to small groups, are instructed to learn the assigned material, and are motivated to make certain that group members also learn the material. Students discuss their learning with each other and help each other understand. Learning is assessed by comparing individual student performance with a preset standard.

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Cooperative learning is the most important of the three ways of structuring learning situations, yet it is currently the least used. It enables students to learn more material, like school better, like each other better, have higher self-esteem, and learn more effective social skills than when students work competitively or individualistically. It should be used whenever teachers want these outcomes for their students and it is particularly desirable when special education students are being mainstreamed (Johnson and Johnson 1986a; Johnson, Johnson, and Maruyama 1983; Johnson and Johnson 1989a, 1989b).

Basic Elements of Cooperative Learning

If cooperative learning is so desirable, why are so few teachers structuring instruction cooperatively? The answer lies in the fact that it is not simple to do and few teachers have been trained in the procedures. However, any lesson and curriculum materials can be modified to include cooperative learning, with interaction ranging from pairs discussing an anticipatory set of questions for five minutes to trios working on complex multi-day units.

Five elements are essential to make a lesson cooperative:

1. *Positive interdependence.* This exists when students perceive that they are linked with others in a way that they cannot succeed unless the other group members also succeed and vice versa. This means that the work of each group member contributes to the success of all other group members. A common group goal must be clearly structured by the teacher. This includes producing a common set of answers or a common product, working for individual mastery by each group member, or raising the group's total score (determined by adding the individual scores). Teachers can also reward the group when everyone in it achieves, arrange for shared resources (one book or microscope shared by group members) and give each student a role that helps accomplish the task, such as reader, recorder, or checker. The more ways positive interdependence is structured within a lesson, the clearer the message to students that they must be concerned about and take responsibility for both their own and each other's learning.
2. *Face-to-face interaction.* Within cooperative lessons, teachers need to maximize the opportunity for students to promote each other's success by helping, assisting, supporting, encouraging, and praising each others' efforts to learn. There are cognitive activities and interpersonal dynamics that only occur when students get involved in explaining to each other how the answers to assignments are derived.

This includes orally explaining how to solve problems, discussing the nature of the concepts being learned, and teaching one's knowledge to classmates.

3. *Individual accountability.* Each individual student's performance is assessed and the results given back to the group and the individual. It is important for the group to know who needs more assistance, support, and encouragement in completing the assignment and for group members to know that they cannot "hitchhike" on the work of others. The smaller the size of the group, the greater the individual accountability may be. Common ways to structure individual accountability include giving an individual test to each student and randomly having group members explain the group's work.
4. *Interpersonal and small group skills.* Groups cannot function effectively if students do not have and use the needed social skills. Simply placing socially unskilled students in a group and telling them to be cooperative does not guarantee that they are able to do so effectively. Students must be taught the social skills appropriate for high-quality collaboration and be motivated to use them. These leadership, decisionmaking, trust-building, communication, and conflict-management skills have to be taught just as precisely and purposefully as academic skills. Procedures and strategies for teaching social skills may be found in Johnson, Johnson, and Holubec (1987, 1990, 1991).
5. *Group Processing.* This exists when group members discuss how well they are working to achieve their goals and maintain effective working relationships. Groups need to describe which member actions are helpful and those which are not helpful and make decisions about which behaviors to continue or change.

Processing enables learning groups to focus on maintaining the group, facilitates the learning of social skills, ensures that members receive feedback on their participation, and reminds students to practice social skills consistently. Teachers should allow time for processing, make processing specific, maintain student involvement in processing, remind students to use their social skills when they process, and make sure that students clearly understand the purpose of processing (Johnson and F. Johnson 1991, Johnson and R. Johnson 1984a).

Implementing Cooperative Learning

Once teachers decide to use cooperative learning, what must they do to integrate cooperative learning into lessons? In general, there are nineteen steps that need to be addressed in the lesson plan (Johnson 1991; Johnson, Johnson, and Holubec 1990, 1991):

1. *Specifying objectives.* As well as specifying an appropriate academic objective for the lesson, the teacher should teach to a social skills objective, detailing a social skill that will be emphasized during the lesson. A common error many teachers make is to specify only academic objectives and to ignore the social skills objectives needed to train students to cooperate with each other.
2. *Deciding on group size.* When students are inexperienced in working together, when time is short, and when materials are scarce, the size of the group should be no more than two or three. When students become more experienced and skillful, they will be able to manage slightly larger groups.
3. *Assigning students to groups.* Teachers may wish to assign students by ability to heterogeneous or homogeneous learning groups. When working on problem-solving tasks and on learning concepts, heterogeneous groups may be most appropriate. When working on a specific

A common error many teachers make is to specify only academic objectives and to ignore the social skills and objectives needed to train students to cooperate with each other.

skill, procedure, or set of facts, homogeneous groups may be useful. Teachers will want to take special care in building groups where students with special learning problems or who are isolated from their peers will be accepted and encouraged to achieve.

4. *Planning how long groups will work together.* Usually it is preferable to keep groups together for at least two or three weeks. Some teachers assign students to groups that last a semester or year whereas others like to keep a learning group together for a unit or chapter. It is desirable to change groups often enough so that students have the opportunity to work with every classmate.
5. *Arranging the room.* Members of a learning group should sit closely together so they can share materials, talk to each other quietly, and maintain eye contact with all group members. The teacher should have clear access to every group. The closer together the members are, the better the communication is apt to be. Common mistakes that teachers make in arranging a room are to place students at rectangular tables (where they cannot have eye contact with all other members) or move several desks together (which places students too far apart to communicate quietly with each other and share materials).
6. *Planning materials.* When students are inexperienced in cooperating, teachers can distribute materials in ways planned to communicate that the assignment is a joint effort and that students feel they "sink-or-swim" together. This might include giving students one set of materials to share or dividing the materials among students so they must share in creating a whole product or learning.
7. *Assigning roles.* Positive interdependence and individual accountability may be emphasized through assigning students roles or jobs to do within the group. In addition to reader or recorder, students can be given such jobs as summarizer (restates the group's major conclusions or answers), checker (ensures that all members can explain how to arrive at an answer or conclusion), or elaborator (asks members to relate current concepts and strategies to previously studied material).
8. *Explaining the academic task.* Teachers need to clearly explain the academic task so that students understand the assignment and the objectives of the lesson. Direct teaching of concepts, principles, and strategies may take place at this point.
9. *Structuring positive goal interdependence.* Teachers must communicate to students that they have a group goal and must work cooperatively. This may be done by asking the group to produce a single product or report, asking students to arrive at a consensus concerning how problems are solved, providing group rewards, or giving bonus points if all members of a group reach a preset criterion of excellence. In a cooperative learning group, students are responsible for learning the assigned material, making sure that all other group members learn the assigned material, then making sure that all other class members learn the assigned material.
10. *Structuring individual accountability.* The purpose of the learning group is to maximize the learning of each member. By assessing the level of each student's knowledge, the group gains the information it needs to encourage and assist individual performance. Individual accountability may be structured by giving individual tests or by randomly quizzing individuals about the group's work.
11. *Structuring intergroup cooperation.* The positive outcomes found with a

cooperative learning group can be extended throughout a whole class by structuring intergroup cooperation. When a group finishes work, the teacher should encourage the members to help other groups master the assignment.

12. *Explaining criteria for success.* Evaluations within cooperatively-structured lessons need to be criterion-referenced. At the beginning of the lesson teachers need to explain clearly the criterion by which students' work will be evaluated.
13. *Specifying desired behaviors.* Teachers need to specifically define for students the behaviors that are appropriate and desirable within the learning groups. Beginning behaviors may include "stay with your group," "use quiet voices," and "take turns." When groups begin to function more effectively, expected behaviors may include having each member explain how to get answers and asking each member to relate what is being learned to previous learning.
14. *Monitoring students' behavior.* The teacher's job begins in earnest when the cooperative learning groups begin working. Much of the teacher's time is spent observing group members to see what problems they are having completing the assignment and to see how they are working cooperatively.
15. *Providing academic assistance.* By monitoring the group activity, teachers may discover the need to clarify instructions, review important concepts and strategies, answer questions, and teach academic skills. This is teaching time—time for the students to get immediate feedback and immediate reteaching if necessary.
16. *Intervening to teach cooperative skills.* While monitoring, teachers should acknowledge and reinforce skillful use of cooperative skills. When needed, the teacher should intervene to suggest more effective procedures for working together and more effective behaviors in which students should engage. Basic interpersonal and small group skills may be directly taught.
17. *Providing closure to the lesson.* At the end of each lesson, students should be able to summarize what they have learned. Teachers may wish to summarize the major points in the lesson, ask students to recall ideas or give examples, and answer any final questions students have.
18. *Evaluating students' learning.* Students' work is evaluated, their learning is assessed, and feedback is given to them about how their work compares with the criterion of excellence.
19. *Assessing how well the group functioned.* Each learning group assesses how well the group members functioned together and plan how to improve their future effectiveness. Two questions for doing so are: "What actions helped the group work productively?" and "What actions would make the group even more productive tomorrow?"

Implementing cooperative learning is not easy. It involves a structured, complex process. It can take years of practice to become an expert. Teachers may wish to start small by beginning with cooperative learning procedures in one subject area or class, then expanding into other areas as they become more comfortable. The following research section makes it clear that the extra work it takes is worthwhile—for both students and teachers.

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Research Supports Impact of Cooperative Experiences

Over 600 studies exist, spanning nine decades of research, which document the relative efficacy of cooperative, competitive, and individualistic goal structures. Extensive reviews of this research have been written (Johnson and Johnson 1989a, Sharan 1980, Slavin 1983). The most significant outcomes of the research on

cooperative learning and mainstreaming follow.

Relationships between students with and without disabilities

Considerable evidence shows that cooperative learning experiences, compared with competitive and individualistic ones, promote more positive relationships between students with disabilities and nonspecial education students (Johnson and Johnson 1974, 1978, 1983, 1984a, 1984b, 1985, 1986a, 1986b, 1989a, 1989b). The theoretical framework behind this research posits that special education students are stigmatized and viewed by peers who are not disabled in negative and prejudicial ways.

When learning situations are structured competitively or individualistically, students with disabilities and regular education students do not interact with each other, feel disconnected and rejected by each other, adopt inaccurate perspectives and have monopolistic and oversimplified views of each other. Students with disabilities exhibit low self-esteem, are relatively unsuccessful academically, and develop negative relationships.

When learning situations are structured cooperatively and students with disabilities and other students work together in the same learning groups, they interact in positive ways, gain an understanding of each other's perspectives, and build a differentiated and realistic view of each other students with disabilities accept themselves as their peers accept them, feel academically successful, and develop positive relationships with other students.

Students in cooperative learning situations tend to use higher-level thought processes, engage in more higher-level oral rehearsal, and discover higher-level strategies more often than do students learning competitively or individualistically.

Achievement

Both students with or without disabilities achieve more in cooperative learning situations than in competitive or individualistic ones. A recent meta-analysis of all the available relevant research studies (378 studies from 1897 to 1989) clearly indicated that cooperative learning experiences result in higher achievement and greater retention of learning than do competitive or individualistic learning experiences (Johnson and Johnson 1989a). In cooperative learning situations, students at the 50th percentile performed at approximately the 80th percentile of students in competitive and individualistic learning situations. This finding holds true for all age groups, ability levels, subject areas, and learning tasks. Students in cooperative learning situations tend to use higher-level thought processes, engage in more higher-level oral rehearsal, and discover higher-level strategies more often than do students learning competitively or individualistically.

Self-esteem and psychological health

An important aspect of mainstreaming special education students into the regular classroom is the effect it has on self-esteem. Cooperative learning experiences resulted in higher levels of self-esteem, healthier processes for deriving conclusions about one's self- worth, and greater psychological health for students with disabilities other students than competitive and individualistic learning experiences (Johnson and Johnson 1974, 1983, 1985, 1989a, 1989b).

Social skills

The ability to become gainfully employed rests to a great extent on the employee's ability to work collaboratively with superiors, colleagues, subordinates, and clients. Students who have had extensive cooperative learning experiences have been found to have more interpersonal skills than students who have primarily experienced competitive and individualistic learning experiences (Johnson and Johnson 1983). Cooperative learning promoted the ability to use one's knowledge and resources in collaborative activities with other people in career, family, community, and societal settings.

Research in process

In 1989-90, 210 Pennsylvania elementary and secondary school staff participated in cooperative learning training, benefiting approximately 3000 regular and special education students. They reported greater acceptance of students with disabilities in the regular classroom, more appropriate

and frequent peer interactions, increased student self-esteem and self-confidence, greater student involvement and on-task behavior in learning activities, greater student achievement, higher quality work, more independence in pursuing individual learning and helping others in the group learn, and greater cooperation and awareness of skills needed to be successful in cooperative activities. Teachers also expressed greater personal and professional confidence in structuring the classroom to meet the social and cognitive needs of special education students (Johnson and Johnson 1990).

The primary goal for mainstreaming special education students into the regular classroom is to involve them in constructive relationships with their regular education peers. By emphasizing cooperative learning, educators can meet that goal and accomplish many other important instructional outcomes. With the amount of research evidence available, it is surprising that classroom practice is so oriented toward individualistic and competitive learning. It is time for the discrepancy to be reduced between what research indicates is effective and what teachers actually do.

Integrating Special Education Students

When special education students are mainstreamed into a cooperative learning classroom, there are a number of issues the teacher should consider.

Anxiety felt by special education students

Many special education students may be fearful and anxious about participating in a cooperative learning group with. Ways to alleviate this anxiety include explaining the procedures the learning group will follow and, giving special education students a structured role so that they understand their responsibilities. There is always some way to facilitate group work, no matter what disability a student may have. The special education teacher can coach the special education students in the behaviors and social skills needed within the cooperative group.

Anxiety felt by regular education students

Many regular education students may be concerned that students with disabilities will lower the overall performance of their group. Ways of alleviating their concern include: 1) having special education teachers coach regular education students in the helping, tutoring, and sharing skills needed to assist the group members with disabilities; 2) making the academic requirements for the special education students reasonable by adapting a different criterion for success for each group member (Group members receive different assignments, lists, words, or problems; the average percentage worked correctly becomes the group's score) or by rewarding improvement; and 3) giving bonus points to the groups that have members with disabilities, creating a situation in which regular education students may want to work with their classmates with disabilities in order to receive the points.

Passive uninvolvement of special education students

When special students are not participating fully in the group, the teacher may wish to jigsaw materials so that each group member has information the others need, divide up roles, and assign the passive uninvolved student one that is essential to the group's success; or may wish to reward the group with bonus points, grades, or nonacademic rewards on the basis of its average performance in order to encourage group members to involve the student.

Promoting Positive Relationships

Training special education students in the social skills required for forming friendships and reinforcing special education students directly for appropriate behavior is important to the success of mainstreaming. Cooperative learning is essential, for it is during cooperative learning that social skills are appropriate. It takes considerable

practice to master interpersonal skills; cooperative learning allows students to practice and be reinforced for using social skills continually throughout the school day. Moreover, regular classrooms are often better settings for social skills training than are special education classes because they may contain a greater number of socially skilled peers who can serve as models and coaches for special education students. Three methods for teaching and reinforcing social skills are:

Coaching

The most successful procedure for teaching social skill is coaching. Coaching involves directly teaching special education students the interpersonal and small group skills they need to interact effectively with their peers. It consists of three steps: 1) A teacher or tutor privately teaches the student with disabilities a well-defined social skill; 2) The tutor observes as the student with disabilities uses the skill in interaction with nonhandicapped peers; and 3) The tutor gives the student with disabilities feedback on how well they performed the skill and provides further teaching as necessary. This sequence is repeated until routine use of the skill is achieved.

Regular classrooms are often better settings for social skills training than are special education classes because they may contain a greater number of socially skilled peers who can serve as models and coaches for special education students.

Training in social skills

In cooperative learning classrooms, all students are taught school skills such as "checking for understanding" or "encouraging participation" as needed. A new skill can be pretaught to the special education students so they are ready to use it when the group meets. Then, when the teacher rewards the skill use, special education students can then earn praise or rewards for the group, thus increasing their status with other group members. Also, group processing in cooperative learning ensures that students with disabilities and those without engage in the metacognitive thought (thinking about how they are thinking) required to develop self-monitoring (observing how well they are performing) and self-control.

Training regular education students to be supportive

Sometimes regular education students are bewildered and puzzled by disabilities and can not understand how best to help the student with special needs learn. In that case, the special education teacher may teach the regular education students the procedures and skills that are most effective for teaching their group members with disabilities, and how to provide encouragement and support for group members with disabilities. The special education teacher can help create a group identity that fosters an "ingroup" feeling so that all members are accepted and supported as "one of the group."

Maximizing Student Achievement

Giving special needs students academic expertise

Constructive relationships between special and regular education students are enhanced when special education students behave in ways that clearly contradict the stereotyped view of them by their nonhandicapped peers. If special education students are perceived to be academically limited, creating situations in which they have clear academic expertise will help promote more constructive relationships. This can be done by preteaching the student with disabilities the material to be taught so the student with disabilities then becomes the group's expert on the material or by pairing the student with disabilities with an academically better student as a study partner.

Ensuring special education students can explain how to derive answers

Sometimes special education students may fail to understand the material the group is studying. A common mistake made in working with students with disabilities is to have them only listen to explanations; they need to give explanations as well. One strategy is to emphasize the role of checker, whose job is to have everyone in the group explain the material. Other

strategies include giving the student with disabilities a partner who is responsible for ensuring that the student with disabilities understands and can explain the work, frequently assessing how much each member of the group has learned in order to ensure that the group members help special education students complete the assignments and understand the material, and assigning special education students to new groups where they teach what they have learned in previous groups.

Individualizing material for diverse students

One problem for teachers is how to make sure that a lesson will be appropriate for all members of the class. Teachers often feel that they do not have the special skills needed to effectively construct a lesson for students with learning problems because they have not received special training in these areas and that the time spent in developing such lessons takes time away from working with students. Actually, it is usually easier to individualize instruction in a class where cooperative learning dominates than in a class where individualistic learning dominates. Within cooperative groups, students may be trained by the special education teacher to provide an idiosyncratic teaching program specifically geared to the student with disabilities. Also, the quantity and level of work required may be varied within the group as easily as within the entire classroom. Special education students may be required to do less work or to do simpler work and may then be evaluated on improvement or the percentage correct.

Whether mainstreaming results in positive or negative outcomes for students with disabilities and regular education students depends on how teachers structure the classroom learning. To establish positive relationships and maximize the achievement and social development of students with disabilities and those without, learning situations should be structured cooperatively rather than competitively or individualistically. Learning to structure cooperative learning is not easy. With persistence and careful implementation, however, teachers can build classrooms in which learning is more effective and more fun, not only for regular and special education students, but also for the teacher.

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Computerized Curriculum-Based Measurement and Classwide Peer Tutoring: Enhancing Instructional Decisionmaking

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Research investigating the teaching profession's use of curriculum-based measurement (CBM) is promising. When teachers measure student growth with CBM and use the information to develop their teaching programs, instructional quality and student achievement have been shown to increase (Fuchs, Deno, and Mirkin 1984; Fuchs et al. in press; Jones and Krouse 1988). In response to a growing base of literature that supports its effectiveness, curriculum-based assessment frequently is cited as a potential method for enhancing the quality of services within general and special education settings (Christenson, Ysseldyke, and Thurlow 1989; Gersten, Carnine, and Woodward 1987; (Reisberg and Wolf 1988; Will 1986; Zigmond and Miller 1986).

Despite the demonstrated efficacy of CBM and increasing calls for its implementation, feasibility issues—such as the time it requires of teachers—abound. In an effort to increase the practicality of CBM, we have undertaken a research program investigating computer applications in reading, spelling, and math. This research has examined five types of computer applications designed to enhance CBM effectiveness and to reduce the amount of time teachers devoted to CBM activity.

1. Computerized data collection and scoring, where CBM tests are generated by computer, tests are administered and scored as the student interacts with the computer, and test feedback is provided immediately to the student;
2. Computerized graphing, where the computer stores and graphs data applies decision rules (developed by us and local math educators) to the graphed data, and communicates those decisions to teachers;
3. Computerized skills analysis, where the computer provides an analysis of the students' responses to every test item to summarize skills mastered and those that need additional work;
4. Computerized instructional decisions, where recommendations again developed by us and local teachers are generated on how to incorporate CBM information into the teacher's instructional program at the individual student level; and
5. Computerized classwide applications, where the performance of the entire class is considered simultaneously and decisions are formulated that are helpful to individual learners while feasible for implementation within the context of group instruction.

For a review of this research program, see Fuchs and Fuchs (1989). In this discussion, we explain how computerized classwide applications can improve teachers' math planning within large-group instructional settings. The example is limited to a sixth-grade mathematics operations curriculum. (For information on reading, spelling, or a comprehensive mathematics curriculum, contact the authors.)

CBM and Peer Tutoring: Classwide Applications

Our rationale for developing classwide applications was to enhance the feasibility with which teachers could implement CBM instructional recommendations within regular education classrooms.

In response to a growing base of literature that supports its effectiveness, curriculum-based assessment frequently is cited as a potential method for enhancing the quality of services within general and special education settings.

These recommendations were meant for teachers instructing individual students, small groups of students, and the whole class, as well as for students working in dyads and using computer-assisted instruction. We hoped to increase the achievement of all students, especially those students with disabilities and other academically at-risk pupils.

In developing classwide applications for CBM, we worked for one year with one teacher in Nashville who used CBM with her entire sixth-grade math class. We extended the use of the initial applications to 10 new classrooms during the subsequent year and compared teacher planning and student achievement across CBM and control classes.

With classwide CBM, teachers administer a timed test each week to their entire class. Test times range from 1 minute at Grade 1 to 6 minutes at Grade 6. In classes without access to a computer laboratory students who are taught data-entry skills enter every student's response to each test item into an available computer. This data entry takes between 10 minutes at Grade 1 and 45 minutes at Grade 6. With access to a computer laboratory, each student works at a computer to enter his/her own test responses. The advantages of this second data-entry method are: 1) the student receives immediate feedback on every test in terms of which problems were worked correctly, the total numbers of digits and problems correct on that test, and a graph of his or her scores for the school year to that point; and 2) data entry can be completed more quickly.

Student Feedback

Every two weeks, each student receives two types of feedback—a computer printed graph, showing the student's own scores over time and a skills analysis. Students are taught to ask themselves three questions when they see their graphs: 1) "Are my scores going up?"; 2) "What is my highest score?"; and 3) "Can I beat my highest score next time?" To perform the skills analysis (Figure 1) students ask themselves whether their boxes are getting darker, and they identify one box they would like to make darker before they get their next skills analysis. Martha Bennett, for example, the first student listed in Figure 1, might look at her clear "M1" box, representing the multiplication of multi-digit numbers with regrouping, and decide to try to "darken" it like her "AS" box (adding and subtracting multi-digit numbers with regrouping).

Teacher Feedback

Every two weeks, the teacher receives classwide graphs that display the 25th and 75th percentile score of the class over the school year to that point. These group graphs also display individual student progress over time. In addition, the teacher receives a classwide skills analysis. The classwide skills analysis (Figure 2) illustrates the performance during one half-month interval. Looking down one column we see every student's mastery status for one type of problem contained in the sixth- grade curriculum; looking across any given row, we see a student's mastery status for every type of problem in the sixth-grade curriculum.

Instructional Recommendations

The computer formulates instructional recommendations based on: 1) the individual and group patterns of growth (using the graphs) and mastery standings (using the skills analyses); 2) the teacher's judgments about what portions of the curriculum already should be mastered and what portions of the curriculum will be taught in the next month; and 3) "expert" CBM information about what types of teaching adjustments are effective for different performance patterns and what skills are prerequisites to other skills. Based on these three sources of information, the computer formulates a report describing instructional recommendations (Figure 2) for whole-class and small-group instruction, as well as for maintenance activities and classwide peer tutoring.

Maintenance Activities

Every two weeks, the computer generates a set of individually-tailored maintenance sheets for each student. Each student's

Teacher: Green
Grade: 6
Dates: Nov 16–Nov 30

	Tests	AS	M1	D1	F1	F2	F3	F4	.1	.2	.3
Martha Bennett	2										
Ken Brown	2										
Carl Berry	2										
Cindy Butcher	2										
James Evans	2										
Joseph Fox	2										
Len Hogan	1										
Latrisha Johnson	2										
Carlton Adams	1										
Louisa Watson	2										
Douglas Miller	2										
Jason McCown	3										
Linda Morton	2										
Katherine Neilson	1										
Courtney Ray	2										
Megan Reddy	1										
Mitch Reynolds	2										
Darren Jackson	2										
Sherry Horne	2										
Larry Holmes	1										
Jamie Michelson	1										
Natoya Sanders	2										
Kenny Snowden	2										
Mack Thompson	2										
Hosun Ti	2										
LaKisha Vickery	2										
Eric Vaughn	2										
Mark Horton	2										
Maria Donahue•	1										
Barry Lattimer	1										

	AS	M1	D1	F1	F2	F3	F4	.1	.2	.3
Not attempted	1	11	2	1	0	4	5	0	10	17
Nonmastered	7	18	14	28	30	25	25	9	17	12
Partially Mastered	4	0	13	1	0	0	0	13	2	0
Probably Mastered	7	0	0	0	0	1	0	0	0	1
Mastered	11	1	1	0	0	0	0	8	1	0

Figure 1. Sample computer-generated Grade 6 classwide CBM Skills Analysis.

MATH RECOMMENDATIONS

Teacher: Green
Level: 6
Dates: Nov 16 - Nov 30

1. Overall your class is doing well on AS (add/subtract multidigits with regrouping). We recommend that the students who still show difficulty with this skill work on it during Classwide Peer Tutoring (see assignments below). The following students show persistent difficulty, and we recommend that you observe them carefully during peer tutoring:

Martha Bennett
Carlton Adams
Linda Morton
Darren Jackson
Hosun Ti

2. Most of your students show difficulty with M1 (multiply multidigits with regrouping). We recommend that you work on this skill with the entire class.

3. Some students in your class show mastery of .1 (add/subtract decimals with regrouping), while others still need work. We recommend that your class work on this skill during Classwide Peer Tutoring (see assignments below).

4. We recommend that all students work on maintenance sheets consisting of mixed problems of types they have mastered.

CLASSWIDE PEER TUTORING ASSIGNMENTS

AS - Add/subtract multidigits

Players	Coaches
Martha Bennett	Joseph Fox
Carlton Adams	Louisa Watson
Linda Morton	Megan Reddy
Darren Jackson	Mitch Reynolds
Hosun Ti	Natoya Sanders
Len Hogan	Mack Thompson
Katherine Neilson	LaKisha Vickery
Sherry Horne	Latrisha Johnson

.1 - Add/subtract mixed decimals

Players	Coaches
Ken Brown	Cindy Butcher
Larry Holmes	James Evans
Jamie Michelson	Jason McCown
Maria Donahue	Courtney Ray
Barry Lattimer	Kenny Snowden
Carl Berry	Eric Vaughn
Douglas Miller	Mark Horton

Figure 2. Sample computer-generated Grade 6 classwide CBM instructional recommendation report.

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maintenance sheets include every type of problem which, according to recent CBM data, the student has mastered. Based on recent CBM data, the computer also divides the class into two teams that should be balanced in student composition.

Twice weekly, the students are timetested on the maintenance sheets and unanswered questions are not scored (i.e., 1 minute at grades 1-2, 3 minutes at grades 3-4, and 5 minutes at grades 5-6). Students exchange papers for grading. Teams receive one point for each problem completed correctly; they lose one point for each incorrect or incomplete problem, and unanswered problems are not scored. Each week, a winning team is announced and applauded by the runner-up team. Maintenance sheets and teams are reformulated every two weeks in response to current CBM information.

Classwide Peer Tutoring

Another feature of the instructional recommendations is classwide peer tutoring. Classwide peer tutoring is an arrangement that permits students to receive individualized mathematics remediation on skill deficiencies within the context of a large-group, teacher-led activity. The recommendations report for classwide peer tutoring identifies tutees (players) and, for each tutee, appropriate peer tutoring content and a suitable tutor coach (Figure 2). Coaches are selected on the basis of CBM data that indicate they are capable of teaching the identified mathematics content. For each problem type, a peer-tutoring folder structures the activities for the participants.

Teaching Tutoring Skills

In two class periods, all pupils are taught to be peer tutors. For the first peer tutoring session, all dyads work on the same problem type so that the teacher may provide corrective feedback on how to tutor. In the second session, students continue to work on the same problem type, but switch player/coach roles. Then in subsequent peer tutoring activities, different dyads work on different problem types that are appropriate to the tutee's needs. The teacher directs students through the peer tutoring activities using a standard set of group directions.

Peer Tutoring Activity

The classroom teacher posts a list of player-coach dyads and has a folder for each dyad-team that contains a 25-problem worksheet for the players and a 25-problem answer sheet for the coach; and a player's and coach's version of an instructional sheet that guides step-by-step interaction. At a given signal, all players stand, get their folders, and sit next to their respective coaches. In the folder the player also finds a 12- problem sheet representing a problem type on which he or she needs remedial work and begins to work on the first three problems with the coach's guidance. The coach's job is to guide the player's performance by asking salient questions and issuing simple directives printed on a "Coach's Instructions" sheet. If the player is working on subtracting with regrouping, for example, the coach begins the interaction by saying "Look at the minus sign. What kind of problem is it? Where do you start?" Digit by digit, the coach guides the player through the problem. The coach asks, "What minus what?" Then, "Do you need to regroup?" If the tutee responds with yes the coach continues. "Where would you go to regroup?" "Do it." "Now, what minus what?"

To each of these queries, the player is expected to respond verbally. If the responses are appropriate, the coach says, "Write your answer"; and the, "Where do you move next?" For the remaining nine problems on this 12-problem sheet, the coach reviews each answer silently. If the problem was solved correctly, the player continues to work independently . If not, the coach uses the above questions and directives to guide the player's performance.

Following completion of the 12-problem sheet, the player and coach practice solving the same problem type on their individual 25-problem practice sheets. Players and coaches have five minutes for the task and are timed by the teacher. They then exchange papers, score them by circling

Classwide peer tutoring is an arrangement that permits students to receive individualized mathematics remediation on skill deficiencies within the context of a large-group, teacher-led activity.

Teachers feel more capable of incorporating students with disabilities into their class instruction when they use classwide CBM applications and peer tutoring as instructional tools.

the correct answers, and write the total number of correct answers at the top of the page.

Players and coaches get points for the number of correct numbers on the two 25-problem sheets and for exhibiting good tutoring behavior such as following directions, staying on task, working quietly, and cooperating. Because the player and coach dyad constitute a team, they pool their points. The pair with the highest number of points for the day is publicly identified by the teacher at the end of the tutoring session and the class gives the two a round of applause.

Preliminary Findings

Our preliminary findings suggest that the potential exists for classwide CBM applications and peer tutoring to enhance achievement outcomes within large-group settings for students with mild and moderate academic problems. Teachers feel more capable of incorporating students with disabilities into their class instruction when they use classwide CBM applications and peer tutoring as instructional tools. An important outcome of our classwide CBM treatment is an increase in the mainstreaming of students with disabilities. Moreover, our research indicates that student achievement has improved with the use of classwide CBM. Group data indicate that when students receive systematic test feedback on their performance within the curriculum and when they routinely receive systematic practice on already mastered problem types that their performance dramatically improves. Peer tutoring also has been proven to be a workable and effective method for providing differentiated instruction, and for allowing students to receive formal instruction on different skills within large-group instructional settings.

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Establishing A Unity Between Regular and Special Education

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> *Would you tell me, please," said Alice, "which way I ought to walk from here?" "That depends a good deal on where you want to get to," said the Cat. "I don't much care where ...," said Alice. "Then it doesn't matter which way you walk," said the Cat. "... so long as I get somewhere," Alice added as an explanation. "Oh, you're sure to do that," said the Cat, "if you only walk long enough.* Alice In Wonderland *by Lewis Carroll.*

In contrast to Alice's contentment simply to arrive "somewhere," the Office of Special Education Programs (OSEP), U.S. Department of Education, has a vision for the future education of individuals with disabilities: "To achieve better results for children and youth with disabilities." Some basic tensions are inherent to achieving better results for all children, including those with disabilities.

A teacher in San Diego captured this tension very well. This teacher participated in a model school and classroom-level initiative designed to bring powerful instructional strategies and school-wide change processes to bear on the improvement of outcomes for children with disabilities. After several months, the teacher commented to an interviewer:

> *I am very pleased with the change in my students who are disabled, as well as with the opportunity to learn new and more effective instructional techniques. My work with the lowest students is very demanding.*
>
> *I often found myself too exhausted to teach the way that was best for those students and delegated instructional responsibilities for this group to the paraprofessional aide. Furthermore, when I looked at the rest of my class, I sometimes questioned: "how much am I taking away from my higher groups?" (Gersten, Woodward, and Morvant 1991).*

Hence, the tension exists between the optimal education for students with disabilities and the education needs of other students. Additional tensions are created by state and federal initiatives and recommendations from highly visible task forces. Teachers are called upon to respond to reform initiatives to educate children with disabilities in the regular education classroom (Will 1986); to produce an increasingly sophisticated work force for the 21st century (Carnegie Forum on Education and the Economy 1986, SCAN 1991); to achieve the six national education goals (U.S. Department of Education 1991); and to use a constructionist approach for teaching mathematics (National Teachers of Mathematics 1989). These initiatives translate into greater decisionmaking responsibilities for teachers and greater emphasis on covering more content, teaching higher-order thinking, and setting higher standards for student performance when teachers and schools are also faced with how best to achieve better academic results with children and youth with disabilities.

The tension exists between the optimal education for students with disabilities and the education needs of other students.

Further, the demands and opportunities associated with these initiatives have the potential to adversely affect the learning of students with disabilities in the regular classroom. The reduction of curricular and instructional choices, for example, may produce higher overall student performance by selecting a constructionist curriculum approach and yet, may be inappropriate for many students with learning problems. All these tensions—school, state, and federal—contribute to the difficulties in bringing together special and regular education students.

The challenge for researchers and others in the education community is to communicate to the classroom teacher the knowledge that ensures children with disabilities can learn and succeed.

Underlying these tensions are various beliefs and values, grounded in an emerging research knowledge base, of how best to achieve better results for children and youth with disabilities. To minimize the tensions, these beliefs and values need to be communicated. First, regular and special educators need to believe that children with disabilities can succeed and learn. Second, they need to believe that children with disabilities can achieve higher outcomes than previously expected. And lastly, regular and special educators need to believe that special education is not a place, but instead a support system of services designed to achieve successful outcomes in children whose unique needs call for specially-designed instruction.

Educational reform and restructuring initiatives require that special education be united with regular education. The implementation of unified policies, programs, and services, and professional practices based on the new research holds great promise for the repositioning of special education. Regular and special education should represent complementary services that can join forces to create a whole spectrum of education opportunities for achieving better outcomes in children and youth with unique needs.

Three lines of research attempt to achieve a unity between regular and special education. The resulting recommendations are suggested for use with students with disabilities for whom the goals of the regular classroom curriculum are appropriate:

- models to enhance the capacity of the regular classroom;
- interventions to enhance higher-order skills; and,
- problem-solving approaches for teachers.

Capacity-Enhancing Models

The belief that all children can succeed and learn represents an essential key toward achieving unity between regular and special education. Children with disabilities spend most of their day in regular education classrooms educated by regular classroom teachers (U.S. Department of Education, Thirteenth Annual Report to Congress 1991). Yet, in a national survey of teachers, less than 40 percent reported using structural arrangements and adaptive instruction to accommodate students with disabilities in their classrooms (Ysseldyke 1989). Instead, the grade level of the student accounted for the differences in the number of teachers and instructional aides in the classroom, grouping practices, methods of instruction and degree of structure.

The challenge for researchers and others in the education community is to communicate to the classroom teacher the knowledge that ensures children with disabilities can learn and succeed (Birman and Kaufman 1991). Communication includes both access to the knowledge and the development of strategies for using it. These strategies must be delivered in a form, either process or product, that works for teachers within the classroom and fits within the school philosophy for educating children.

Successful Instructional, Organizational, and Administrative Practice

There are several specific strategies and interventions that teachers may use to successfully educate children with disabilities in regular classrooms. The most promising of these practices actually draws upon a growing body of research with classroom teachers and is supported through the OSEP initiative: *Research on School Building Models for Educating Students with Handicaps in General Education Settings.* Lessons learned during the implementation of these studies has led to an evolution from empirically-validated strategies into modified or new approaches that teachers have reported make sense and are possible to implement.

In general, the outcomes of the OSEP-funded projects have been: 1) to improve the academic skills of the students; 2) to promote a sense of well-being within students; and 3) to increase the level of

integration of students with mild disabilities in regular education classrooms. Two approaches were employed by these projects: 1) the systematic implementation of specific, empirically-validated classroom and school interventions; and 2) the implementation of interventions based on principles of school change and innovation drawn from validated practices (Woodward 1991; Fitzgerald, Zigmond, Kay, and Beck 1991).

Systematic Classroom Interventions

The following interventions have been implemented by the teachers:

- Study Skills Programs;
- Mainstream Assistance Teams;
- Classroom management, including social behavior programming and monitoring;
- Classwide peer tutoring in several content areas;
- Computer-managed, ongoing monitoring of students' academic performance;
- Systematic reintegration procedures;
- Structured reading programs incorporating cooperative learning (Cooperative Integrated Reading and Composition, CIRC);
- School survival skills (e.g., proofreading, learning how to complete assignments, previewing chapter content);
- Nongraded grouping plans for grades 1-3 in reading and language arts; and,
- Nongraded grouping plans for grades 1-6 in mathematics instruction.

As a specific project example, the Mount Vernon District in Washington State designed a school building model for effectively serving elementary-aged students with disabilities in regular education classrooms. Because of the multiplicity of problems experienced by students with disabilities in the regular education classroom, the team selected a multicomponent program that matched research-based interventions to overcome the problems (Jenkins 1988). The multicomponent program offered:

- Up-front assistance to classroom teachers using mainstream assistance teams and technical assistance teams;
- Curriculum-based measurement procedures to facilitate individual program planning and to detect problems early;
- Curricular models that accommodate diverse learning needs in general education classrooms, such as Joplin-like plans and cooperative learning;
- Procedures to deliver supplemental, intensive instruction to students who lag behind classroom peers, such as cross-age and peer tutoring programs; and,
- Teacher instruction in learning strategies that assist students in organizing time and school materials, in taking test and studying and preparing for schooling (Jenkins 1988).

In the Mount Vernon project, regular and special education teachers and administrators have united to identify school problems and develop comprehensive school-based solutions.

Process of School Change

Projects modeled upon the process of school change have been particularly sensitive to addressing the tension teachers experience. Teachers want to raise the achievement of all students through school restructuring efforts and implement innovative reforms and practices for students with disabilities without sacrificing quality education for other students, including those who are at-risk and those who are academically-talented. These process models usually include the following steps:

1. Cultivation of a common base of knowledge, values, and language among the special and regular education teachers.
2. Establishment of a strategic planning process.
3. Development of peer support among the teachers.
4. Provision of technical assistance when designing and implementing specific instructional and administrative strategies (Fitzgerald 1991).

A process approach invites regular and special educators to solve problems, develop strategies, and create an effective learning environment that can adapt to the needs and experiences of all students in the school. When regular and special educators collaborate to identify interventions for meeting the unique needs of students with disabilities, more positive results occur than when a special educator is the expert advising regular educators (New York State Education Department 1987).

In one project, "instructional coaching" was emphasized. Special and regular educators worked together with special educators providing direct assistance on instructional strategies to meet the needs of specific students with disabilities in the classroom. In another project, the process which engages faculty, students, and parents may be described as follows:

> *Teachers, administrators, and students will develop a school climate which encourages habitual school attendance, sets high expectations for student achievement, and nurtures student feelings of competence and worth. Instruction for all students will be improved by incorporating new grouping patterns and a more thoughtful selection of objectives into day-to-day teaching plans.*
>
> *For content subject classes, consulting teachers and teacher assistance teams will help mainstream teachers brainstorm new teaching strategies or behavior management techniques for accommodating students with widely differing cognitive and basic skill proficiency in one class. And as a support for the activities in school, parents will be encouraged to stay involved, visible, and active in learning lives of their children. (Project TEAMS: Tailoring Educational Alternatives for Mainstreamed Students 1988).*

When regular and special educators collaborate to identify interventions for meeting the unique needs of students with disabilities, more positive results occur than when a special educator is the expert advising regular educators.

Interventions to Enhance Higher-Order Skills

As educators, our beliefs about diversity, and, in particular, children and youth with disabilities, have been influenced by behavioral, cognitive, and social learning theory. These theories have contributed greatly to our understanding of how children learn, or in some cases, why children exhibit difficulty in learning (MacMillan and Morrison 1980; Palinscar, David, Winn and Stevens 1991).

More importantly, these theories ground instructional research that demonstrates that students with special needs—those students for whom the goals of the regular curriculum are appropriate—can learn higher-order thinking skills. Research over the last decade provides the evidence that students with learning problems demonstrate composing skills (Englert, Raphael, Anderson, Anthony, and Stevens 1991; Harris and Graham 1985), reasoning skills (Grossen and Carnine 1990); problem solving skills (Woodward, Carnine, and Gersten 1988), and reading comprehension skills (Palinscar and Brown, 1984 Palinscar et. al. 1991). Thus, the mechanisms for teaching these cognitive strategies to students with special needs has been a serious topic of research.

The objective of cognitive strategy instruction is the development of self-regulated learners (Harris 1990). Instruction is carried out by teachers who are responsive to the instructional needs of learners who may vary in their knowledge of strategies for efficiently accomplishing learning tasks; in their knowledge of their own learning characteristics and task demands that enables them to select, employ, monitor, and evaluate strategy use; in their real world of knowledge; and in their motivation to employ strategy knowledge (Palinscar et. al. 1991). Teachers tailor and reshape instruction in light of a student's particular learning needs and do a great deal to make certain that students understand the nature of the task, and the use and significance of the strategies they learn (Harris and Pressley 1991).

Effective cognitive strategies have been determined through the analyses of domain specific tasks such as reading, writing, and science; the study of how competent students perform academic tasks; and the study of how students learn (Carnine in press; Harris and Pressley

1991; Palinscar et. al. 1991). When these strategies for teaching higher-order thinking skills are coupled with sustained and intensive methods of teaching, success and learning occurs in students with disabilities in the regular education classroom.

Illustrative Approaches of Strategy Instruction

Numerous interventions for teaching cognitive and metacognitive strategies to children with learning problems have been empirically validated. Three basic assumptions underlie all of these instructional interventions: 1) inefficient learning behavior is modifiable; 2) once armed with the strategies, students who have experienced learning problems will be more active, thoughtful, and confident learners; and 3) when coupled with systematic, intensive instructional techniques, strategy instruction is an avenue leading to more effective and efficient learning (Scheid 1989). Four examples of cognitive strategy intervention are described below.

1. **Reciprocal Teaching.** Through discussions between teacher and students, reciprocal teaching involves the development of a set of complementary strategies for teaching reading comprehension. These strategies are: 1) generating questions from the text; 2) summarizing the text; 3) clarifying portions that interfere with understanding of the text; and 4) predicting upcoming content based on text and structure clues (Palinscar et. al. 1991; Palinscar and Brown 1984).

   Reciprocal teaching places emphasis on collaboration by teachers and students to bring meaning to text. When the dialogue between teacher and student begins,

   ... the teacher assumes principal responsibility for leading and sustaining the discussion, and modeling skilled use of the strategies for the purpose of understanding the content. Even from the first day of instruction, children are encouraged to participate in the discussion by generating their own questions, elaborating upon or revising the summary, or suggesting additional predictions. The teacher enables the participation of each student in the dialogues through the use of specific feedback, additional explanation, and modeling (Palinscar 1991).

2. **Math Problem Solving Strategy.** Students learn to apply specific processes to solve word problems [e.g., read for understanding, paraphrase, visualize, hypothesize estimate, compute, and check (Carnine, Silbert, and Stein 1984, Montague and Bos 1986) and learn how to use self-instruction, self-questioning, and self-monitoring to control and regulate work when learning to solve word problems (Montague 1991). During the first step of the strategy—reading for understanding—the following self-regulating questions would be taught to students:
   - **Self-instruct:** "Read the problem. If I don't understand, read the problem again."
   - **Self-question:** "Have I read and understood the problem? Do I need to ask how to say words or what words mean?"
   - **Self-monitor:** "Check for understanding by the way I show the problem in the next few steps."

3. **Story-Grammar Strategy.** One approach for teaching writing is to teach story grammar elements and self-questions to students so they may learn to guide themselves through the planning and writing process (Harris and Graham 1985, Harris and Pressley 1990). Using a mnemonic for teaching story grammar elements, critical story grammar elements are represented by questions. The student will ask, for example, "Who is the main character?" "Who else is in the story?" "When does the story take place?" "Where does the story take place?" "What does the main character want to do?" After students have mastered the story grammar elements, the students learn a strategy for planning their stories through asking a series of questions designed to prompt their

thinking, and thus assist in story planning. (Harris and Graham 1985).

4. **Strategies Intervention Model.** Deshler and his colleagues at the University of Kansas have systematically developed a strategies intervention model for secondary students. Simply, the model includes techniques so students may: 1) acquire information from written materials; 2) identify and store information, using notetaking, first-letter mnemonic, and paired associate strategies; and 3) write, using sentence writing, paragraph writing, theme writing, error monitoring, and test-taking strategies (Deshler and Schumaker 1986).

Problem-Solving Approaches for Teachers

"Break the mold" schools must design and implement reforms that are outcome-oriented, and that are truly inclusive in their capacity, expectations, and commitment to meeting the developmental and learning needs of all children. The new generation of schools must be develop to where the orientation to children's educational differences is not one of deviancy, but diversity. The current orientation that considers individual differences as deficits or deviancy has resulted in a perspective that emphasizes special education is as a "place" for addressing such needs. Several trends have contributed to this perception about special education.

Context for Problem-Solving Approaches

In the early 1980's, the growth in the number of children with learning disabilities being referred and found eligible for special education and related services and the "over- representation" of minority children in special education programs became real concerns to educators. These trends can be interpreted as either reflecting the limited capacity of regular education to meet special education needs or the inadequacy of special education procedures to identify, assess, and evaluate students for eligibility.

In an original and influential effort to review the current state of policy and practice for identifying students with learning disabilities, Chalfant (1984) concluded that these issues were symptoms of a much larger problem. His analysis identified five components of state policies that define a student as disabled: 1) the student fails to achieve in his/her academic subjects; 2) the student exhibits differential patterns in his/her psychological process; 3) the student presents with a disability whose cause is unknown; 4) the student presents with a learning disability that is not due to another disability, such as mental retardation or emotional disturbance; and 5) the student demonstrates a significant discrepancy between his/her ability and his/her achievement.

Concerns about possible inappropriate identification of minority children produced alternative measurement techniques, such as dynamic assessment (Rothman and Semmel 1990). Finally, concerns about educating individuals with disabilities in regular classrooms contributed to advancements in assessment, such as curriculum-based assessment (Tindal 1988, Marston and Magnusson 1988).

Prereferral assessment and intervention processes and strategies emerged in response to both the need to enhance the capacity of regular education to provide alternative instructional options, and the need to strengthen the identification and assessment processes that determine if a student has a specific learning disability. Thus, prereferral strategies and processes provide teachers with problem solving approaches for moving special education from a place to a set of supports and services.

Commonalties Across Problem-Solving Approaches

Prereferral processes are a systematic effort to change the manner in which students are assessed and identified as having special needs. Prereferral strategies are either consultative or team problem-solving efforts between educators to develop, implement, and evaluate alterna-

tive interventions to serve one or more students with learning problems in the regular classroom. Teams usually are comprised of a special educator, regular educator, reading teacher, counselor, nurse, and/or administrator.

Prereferral strategies have been mandated in 27 states. In some states, regular education has instituted prereferral processes (e.g., Maryland). In other states, special education has implemented prereferral processes (e.g., North Carolina). Several common lessons have been learned (Graden 1985, Eleventh Annual Report to Congress 1989, California State Department of Education 1986, Kansas State Department of Education 1987, New York State Department of Education 1987, and North Carolina State Department of Education 1987):

- Prereferral procedures result in decreased rates of referral for special education. The decrease in referral rates has been reported to be between 30-50 percent.
- Team-based collaboration and sharing is important in designing, implementing, and evaluating prereferral interventions. This approach is in contrast to special education experts prescribing interventions.
- A support system for regular education teachers to design, implement, and monitor the effectiveness of prereferral interventions is important.
- Direct instructional interventions (e.g., graphic organizers, adapted homework assignments) that specifically address an academic or behavioral need are more effective than statements of diffuse concerns and general interventions (e.g., changing a student's seat, calling a parent).
- Commitment to keep trying alternative options was the most important predictor of prereferral intervention effectiveness. Districts with lower rates of referral to special education tried twice as many prereferral intervention options than districts with high rates of referral to special education.

Prereferral processes and interventions assist in creating a unity between regular and special education. Special education is considered a service—not a place—that provides a knowledge and experience source that can address individual problems. Special education supports other programs in a collaborative manner. Thus, to achieve a broader unity between regular and special education, the focus must be on obtaining better results for individuals with disabilities within the larger spectrum of educational opportunities.

Advances in special education research will continue to contribute to the design of a new generation of schools where unity between regular and special education can be systematically realized. Research in instructional and administrative strategies for educating children with disabilities in general education settings; cognitive and metacognitive strategies training; and problem solving strategies are recommended approaches to this unity.

Special education is considered a service—not a place—that provides a knowledge and experience source that can address individual problems.

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FOUR

Recommendations

LRE Monitoring/Advocacy Guidelines for State and Local Associations[1]

The following questions are intended to guide development of proactive state and local strategies to influence effective implementation of the least restrictive environment (LRE) provisions of law and regulation. The questions are derived in the main from NEA policy and position statements, as augmented by the work of the NEA Standing Committee on Instruction and Professional Development during the 1991-92 academic year. In the case of local and/or state situations where the affiliate finds itself in a reactive mode, these questions can serve as a checklist for identifying inappropriate or deficient implementation practices that need to be addressed through collective bargaining, political organizing, grievance or complaint processing, or other forms of member advocacy.

Educational Environment

- Do available curricular offerings, instructional materials, support services, and pupil personnel services match the learning needs of all students?
- Does a full continuum of program options—ranging from a self-contained facility to fully integrated regular classroom settings—exist?
- Do the available programs for all students lead to meaningful outcomes in which students acquire the skills necessary to meet their fullest potential?
- Are buildings, staff allocations and assignments, class sizes, and the like modified as required to meet student needs?
- Are sufficient licensed practitioners employed to address the social, emotional, and cognitive needs of all students?
- Is funding, scheduling, and support for implementation strategies—e.g., collaboration, team teaching, study team planning, staff development, coordinated planning time, and other support activities—explicit, sufficient, and separate from resources allocated for direct services to students?
- Does the local association actively seek adequate planning time, materials, facilities, and compensation for teachers, counselors, and other staff working in programs that serve students with disabilities?

Policies and Practices

- Does school district policy explicitly call for a free, appropriate public education for all students with disabilities in an appropriate least restrictive environment as determined by maximum teacher involvement?
- Is each affected teacher given a copy of a student's individualized education program (IEP) prior to the student's placement?

- Is student placement based on individual needs, not on space availability or funding, or solely on parental demand?
- Are student placements regularly examined to ensure their appropriateness?
- Are suspension and expulsion practices applied consistently and equitably to all students where misconduct is shown to be unrelated to either a disabling condition or to improper placement?
- Are student placement patterns periodically examined to ensure that students are not placed in programs disproportionately by ethnicity or gender?
- Do the program and testing instruments used to identify students needing special education services accurately identify them regardless of ethnicity, socioeconomic background, native language, or limited English proficiency?
- Do eligibility standards for receiving special education services exist and are they consistently maintained?
- Are limitations in class size applied—using such methods as weighted formulas, modified scheduling and/or curriculum design—to accommodate the demands of each student's IEP?
- Is a plan recognizing individual differences used in conducting systematic evaluation and reporting of program development?
- Are programs for meeting the needs of students with disabilities evaluated on their stated objectives?
- Are programs evaluated carefully and regularly to ensure the success of students with disabilities and special needs students as well as their peers in regular education?
- Is there a means for assessing whether students are being denied access to special education services based on concern about the disproportionate number of minority students already receiving those services?
- Do teachers receive adequate preparation and consultation time or compensation for the additional time required to meet the increased demands of special education legislation?
- Are teachers provided with ongoing, appropriate professional growth programs and time within the school day for planning and consultation with resource and other support team personnel?
- Is appropriate attention paid to modifying or reducing the paperwork associated with IEP development and maintenance?
- If additional benefits for students with disabilities have been determined through local collective bargaining agreements, are they honored?
- Is communication maintained among all involved parties?

Staff Preparation/ Professional Growth

- Are all staff providing services to students with disabilities fully and appropriately credentialed in accordance with state law?
- Are all staff provided with professional growth programs that adequately prepare them for their roles?
- Are all staff provided with staff development programs that equip them to distinguish fully and appropriately between students' culturally-based behaviors and any disabilities that may be present?
- Are professional growth or staff development programs budgeted, fully funded, and scheduled on a released time basis throughout the school year?
- Are incentives for mandated teacher participation in professional development activities made available?
- Do the local or state associations advocate and/or support efforts to retrain staff or hire additional teachers with education in special areas?

Roles and Responsibilities

- Is there sufficient school district support for the identification of students with special needs?
- Do regular and special education teachers, pupil personnel services staff, administrators, and parents share in planning, implementing, and evaluating programs and medical services for students with disabilities?
- Do both regular and special education classroom teachers have a major role in determining students' IEPs?
- Are sufficient licensed/certificated school nurses employed to meet the medical needs of students with physical disabilities and/or medical needs requiring nursing procedures?
- Does the local association actively monitor school system compliance with special education legislation, rules and regulations?
- Does the local association use collective bargaining or other advocacy processes to protect members' rights and interests and minimize the potentially severe impacts on staff of LRE implementation?

Decisionmaking

- Do classroom teachers participate in determining the appropriateness of educational methods, materials, curriculum, professional development, and supportive services?
- Do IEP planning committees consider the full range of options available within the least restrictive environment and follow a process ensuring an appropriate program and school activities for each student?
- Is each impacted classroom teacher fully involved in decisionmaking, planning, and evaluation processes related to a student's IEP?
- Are impacted education support personnel involved in decisionmaking about the ongoing maintenance of a student's IEP provisions?
- Are school personnel full participants in determining, planning, designing, and implementing necessary staff development programs?
- Are impacted school personnel full partners in any redefinition of roles and responsibilities?

Rights and Responsibilities

- Do classroom teachers have an appeal procedure to use if challenging implementation of an IEP, especially in regard to student placement?
- Are staff protected by "no layoff" policies?
- Are staff protected from undue or inappropriate workload increases in the event of any redefinition of roles and responsibilities?
- Are affected staff notified of school district requests for deviations from special education rules?
- Do processes and policies exist for protecting parents' rights?
- Is there a means for teachers to exercise their legal right of dissent concerning each IEP, including the right to have that dissenting opinion recorded?
- Are staff protected from retaliation if or when they identify and file complaints on rule and law violations?
- Are teachers appointed to local and state advisory bodies on special education, as required by law?
- Are teachers invited and allowed to participate in on-site state visits by representatives of the U.S. Office of Special Education and Rehabilitative Services?
- Are student IEPs excluded as criteria for teacher evaluation?
- Do classroom teachers who serve students with disabilities have scheduled access to resource personnel?
- Do all teachers who serve students with disabilities have ready access to the cumulative records of those students?

ENDNOTES

[1]These guidelines are derived from 1991 NEA Resolutions C-32 (Alternative Programs for At-Risk and/or Special Needs Students), C-36 (Education for All Students with Disabilities), and C-37 (Regular Education Initiative/Inclusive Education). They also incorporate relevant guidelines developed by the NEA Executive Committee's Subcommittee on Academic Tracking during its 1988-90 activities. Additional guidelines have been generated by the NEA Standing IPD Committee while completing its 1991-92 work on a charge created by adoption of New Business Item 1991-74 (Definition of Regular Education Initiative/Inclusive Education).

FIVE

Glossary

At-Risk Students: Students who are not only at risk of not getting a diploma, but also of graduating with inadequate academic competencies, of not pursuing additional educational experiences, of not becoming successfully employed, and of not making a successful transition to adulthood and becoming productive members of society.

Continuum of Delivery Models: There must be full array of services and a full continuum of delivery models available to students with disabilities to accommodate an individual student's characteristics, needs, abilities, and interests in accord with the principle of least restrictive environment.

Cooperative Teaching Practices: The appropriateness of educational methods, materials, professional development, and supportive services determined by the joint agreement of both regular and special education classroom teachers.

Inclusive Education: Provision of education and related services to all special education students in the regular classroom setting for all or a substantial part of the school day. In common practice this term is often used synonymously and inappropriately with such other integration terms as mainstreaming, the Regular Education Initiative, and least restrictive environment.

Individualized Educational Program (IEP): An individual student's educational plan that includes the following:

- a statement of present levels of educational performance
- a statement of annual goals and objectives
- a statement of specific education and related services to be provided to a student
- the projected date for initiation and duration of services
- appropriate objective criteria with evaluation procedures and schedules for determining, on at least an annual basis, whether the short term instructional objectives are being achieved

Least Restrictive Environment (LRE): The legal concept and regulatory term requiring that to the extent appropriate, students with disabilities are educated with children who are not disabled. Special classes, separate schooling, or other programs that remove students from the regular classroom occur only when the nature or severity of the condition is such that education in regular classes with the use of supplementary aids and services cannot be achieved satisfactorily. In common practice this term is often used synonymously and inappropriately with such other integration terms as inclusive education, the Regular Education Initiative, and mainstreaming.

Mainstreaming: The movement of individual students who have physical, emotional, and learning disabilities from their segregated status in special education classes and integrating them with regular students in regular classrooms. In common practice this term is often used synonymously and inappropriately with such other integration terms as inclusive education, the Regular Education Initiative, and least restrictive environment.

Regular Education Initiative (REI): The so-called Regular Education Initiative originated as a preference of the U.S. Department of Education expressed by Madeleine Will, then assistant secretary for the Office of Special Education and Rehabilitative Services (OSERS). In a brief paper derived from the work of an OSERS Task Force and published in November 1986, Will "invit[ed] and encourage[d] the education community to join us in trying to better serve as many children with learning problems as possible in the regular classroom ..." She called for states to "encourag[e] special education and other special programs to form a partnership with regular education ... to support regular education in educating children with learning problems." In common practice this term is often used synonymously and inappropriately with such other integration terms as inclusive education and least restrictive environment.

Related Services: All services needed for the full education of students with disabilities. This includes transportation, and developmental, corrective, and other supportive services including: speech pathology and audiology, psychological services, physical and occupational services, recreation (including therapeutic recreation), social work, and medical diagnostic counseling services (including rehabilitation counseling) as may be required to assist a student with disabilities in receiving a full education. In addition, services include activities for a student which promote movement from school to post-school activities, including post secondary education, vocational training, integrated employment, continuing and adult education, adult services, independent living, and community participation.

Special Education: Specially designed instruction that meets the unique needs of a student with academic, physical, or emotional disabilities including instruction conducted in the classroom, in the home, in hospitals and institutions, and in other settings; and instruction in physical education.

Students with Disabilities: Students with mental retardation, hearing impairments (including deafness), speech or language impairments, visual impairments (including blindness), serious emotional disturbance, orthopedic impairments, autism, traumatic brain injury, other health impairments, or specific learning disabilities and who, by reason thereof, need special education and related services.

Validated Practices: Educational policies and practices that have been found through empirical documentation to lead to higher achievement outcomes for students.

Weighted Formulas: Calculations that assist in determining class size limits and are based in such factors as type and severity of student disability and the demands of each individualized education program.

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